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NASA STI
Bulletin

1975-1978

1975

* * * RECON BULLETIN * * *

CAPABILITY TO SELECT MAJOR OR MINOR TERMS

Heretofore, all RECON SELECT Commands caused all documents indexed to a given term to be included in the created set. We now have the capability of SELECTING sets of documents in which an assigned term is either a Major or Minor term as well as the long standing capability of SELECTING all uses (Major and Minor) of the term.

As in the past, if one SELECTs terms using the "ST/" prefix or the EXPAND reference numbers (e.g. "E10," "R8" etc.), both Major and Minor uses of the terms will be picked up. If one wants to simply do as before, no change in operating procedure is required.

Now, one can search those documents that have specific subject terms assigned as Major terms (In STAR or IAA accessions, these terms would appear in the published indexes) or as Minor terms. In such cases, one must use the prefixes:

> MJ/ (for Major terms) or
> MN/ (for Minor terms).

Thus, to select the subject term SUPERSONIC TRANSPORTS only when it has been used as a major term in indexing a document, one would enter:

> bMJ/SUPERSONIC TRANSPORTS.

To select the subject term SUPERSONIC TRANSPORTS only when it has been used as a minor term in indexing a document, one would enter

> bMN/SUPERSONIC TRANSPORTS.

The sets thus created can be handled as any other RECON sets, e.g., printed separately.

*Preceding Bulletin was No. 74-5

To make SELECTs from EXPAND lists, one must insert the "MJ/" or "MN/" prefixes before the "Enn" or "Rnn" reference numbers. Examples of formats are as follows:

> bMJ/E6
> bMN/E10
> bMJ/R1-R3, R5, R7, R8
> bMN/R1-R3, R5, R7, R8

All of the above are valid uses of this new capability.

It is expected that this new capability will enable RECON users to obtain searches of higher pertinence for a given topic. The system indexers attempt to assign Major and Minor terms based on the relative importance of the indexing concepts contained in each document. Thus, the Major/Minor SELECT capability provides the potential for improved searches or two-level printouts.

MULTIPLE CITATION DISPLAY

A capability now exists to view more than one citation on the screen at one time on the RECON display. This capability should not be used if the complete citation (i.e. Format 2) is desired since a complete citation usually requires the entire screen.

To use this capability effectively, one must first define a smaller format using the SPECIFY FORMAT command. Any SPECIFY FORMAT in effect during a search will, of course, affect both the Format 4 and the multiple citation displays.

To utilize this new feature, it is only necessary to do the following:

> 1. Execute a valid SPECIFY FORMAT command.
>
> 2. Display the desired set in Format 5.
>
> 3. Page through the set.

Thus, the only real change to the present procedure is the use of the DISPLAY in Format 5:

> d1/5 (display Set 1 in Format 5).

In the future we plan to make several new abbreviated fixed formats available, which will eliminate the necessity of executing the generalized SPECIFY FORMAT command.

RECON RESPONSE TIME VS RECON USAGE

All RECON users share the desire for a more rapid response from the
system once the TRANSMIT Key is pressed. We who plan development
activities for the system have been working on the problem from every
possible angle--beginning even in the early days when RECON was just
barely operational. These efforts have frequently been thwarted by
two main opposing forces, namely, the growth of the files (both the
normal growth and the increased number of file types) and the increase
in demand placed upon the system as evidenced by the number of commands
received and processed in a given day.

The following plot of RECON performance over a two-year period shows
that as RECON response time is reduced through system improvements,
the demand placed upon RECON is increased thereby revealing a sub-
stantial latent demand. Use of semiannual averaging periods helped
to smooth out some of the seasonal and operational variables. Data
for the second half of 1974, when added, will show a further reduc-
tion in the average response time.

GROWTH OF RECON DEMAND (FIXED NUMBER OF TERMINALS)
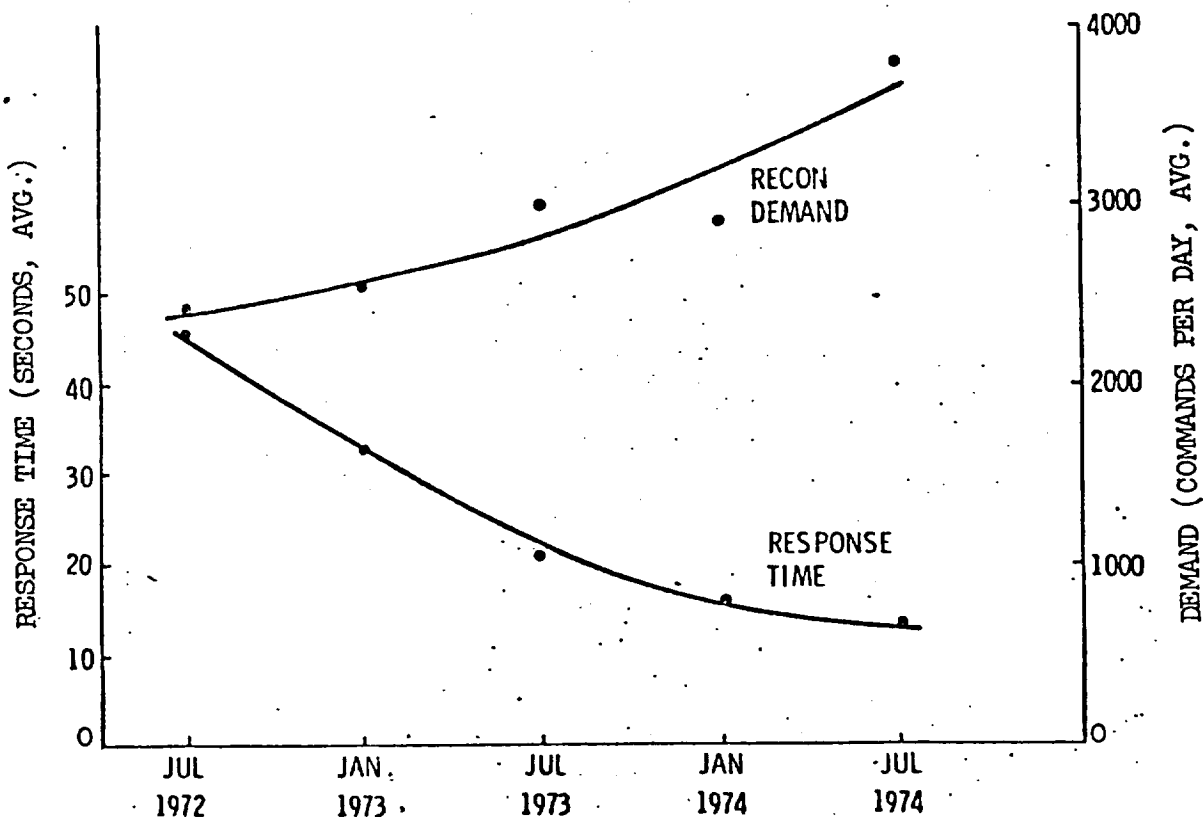
* * * RECON BULLETIN * * *

RECONFIGURATION OF COMMUNICATIONS LINES

If you're seeing your Friendly "Ma Bell" man more and enjoying it less, blame RECON reconfiguration. Our AT&T long-line communication links are being reconfigured to accommodate new customers; three new terminals at Regional Dissemination Center in Los Angeles, Pittsburgh and Bloomington, a terminal at DDC-Cameron Station, Va., and a terminal at the Federal Energy Administration in Downtown Washington. In addition, the NASA STI Facility will be moved to near Friendship Airport (Baltimore-Washington) probably in March, and new lines must be available at the time of the move to prevent inordinate loss of service. The reconfiguration of RECON lines and terminals was based on probable terminal use-rate and geographic location, tempered by economy considerations. Pardon the inconvenience! Diagram is attached for new configuration.

MULTIPLE-CITATION DISPLAY REQUIRES PAGE

Following-up our announcement of the new Multiple-Citation Display in the last RECON Bulletin, please note that you must use the PAGE command to go from one page of a multiple-citation DISPLAY (Format 5) to another. Neither the ITEM command nor the DISPLAY command will provide this function.

PAGEing may be done both forward and backward without difficulty.

Note also that, in the case of large sets, you cannot simply PAGE all the way through the set. This limitation is because RECON sets up only as many citations for the Multiple DISPLAY as will fit into a limited computer work area. Depending on the fields you specify and their contents, this number will usually range between 30 and 90 citations. To go beyond this point, that is to go beyond the first 30 to 90 citations you must proceed as follows:

> Assume set number 1 contains 450 citations. When you
> enter your first DISPLAY command the output will contain
> a heading like the following:

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in College Park, Maryland, (Telephone: FTS (301)982-6344, off FTS (301)779-2121, ext. 606 or 607). Other problems, suggestions, and comments may be directed to Bill Brown or Van Wente (Telephone (202)755-3465).

DISPLAY 01/5/1-7 of 87.

.where 1-7 are the set items shown on the screen and
87 is the total number of items you can readily PAGE
through.

If you PAGE through the group, the last output will contain a
heading like that below:

DISPLAY 01/5/84-87 of 87.

To continue PAGEing beyond this you must enter the following
DISPLAY command:

d1/5/88-450.

Your next output will have a heading similar to the following:

DISPLAY 01/5/88-93 of 85.

where 88-93 are the set items shown on the screen and
85 is the total number of items you can PAGE through.

In this manner you may enter the set at any point and proceed
PAGEing from there. For example, if you wanted to see only
the last twenty items in the above set you would begin by
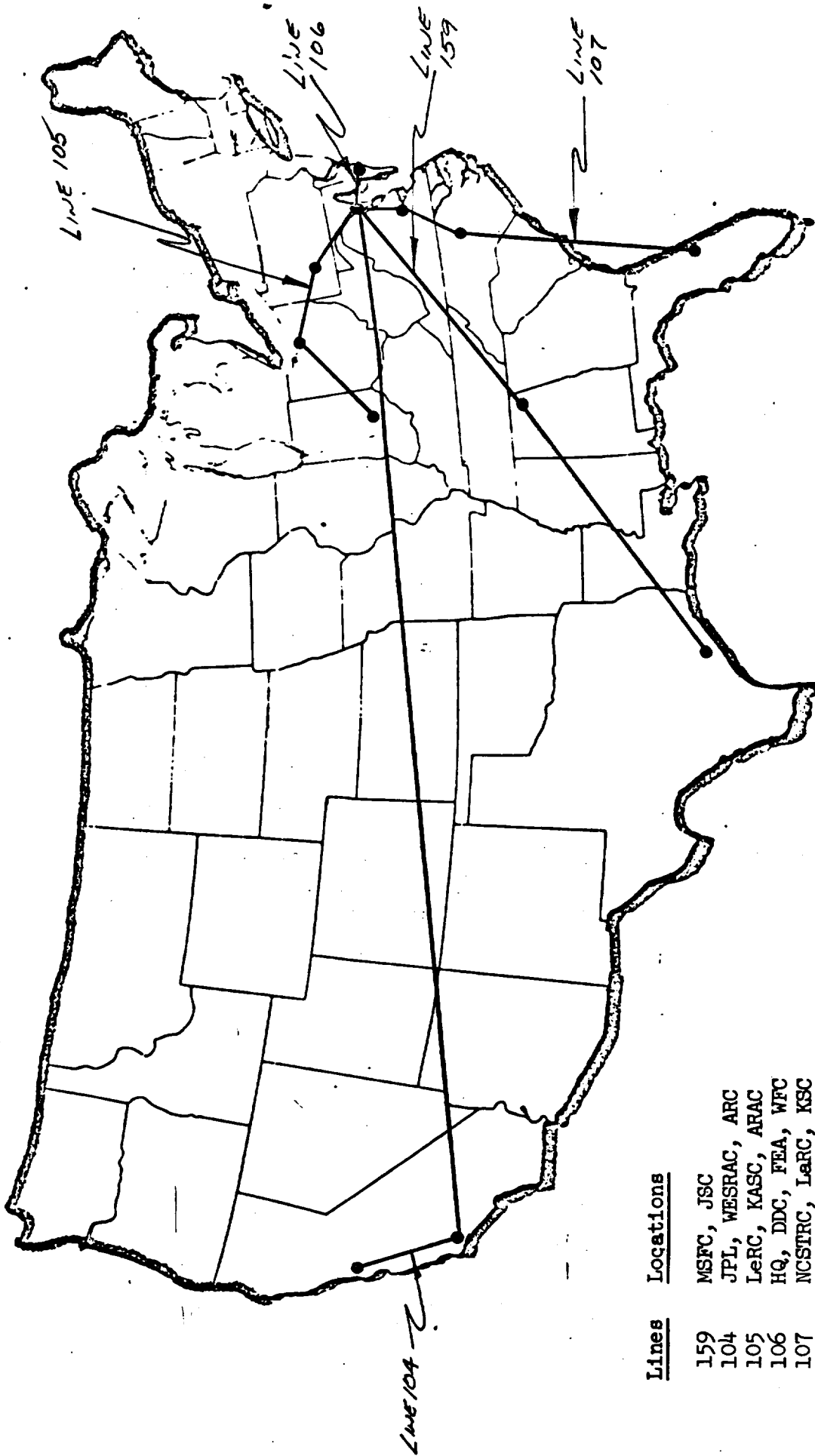entering the following DISPLAY command:

d1/5/431-450.

Then you would PAGE between the twenty items, as appropriate.

RECON TELECOMMUNICATIONS RECONFIGURATION

FEBRUARY 1975

LINE 105

LINE 106

LINE 159

LINE 107

LINE 104

Lines	Locations
159	MSFC, JSC
104	JPL, WESRAC, ARC
105	LeRC, KASC, ARAC
106	HQ, DDC, FEA, WFC
107	NCSTRC, LeRC, KSC

* * * RECON BULLETIN * * *

RECON OUTAGE
As many of you already know, the STI Facility is now
in the process of moving to a new location at Linthicum
Heights, Maryland.

The computer that serves the RECON users must be
moved, and the leased telephone lines used by the RECON
system must be re-routed. This will cause an interruption
in your RECON service.

Our current expectation is that RECON service will ter-
minate on the evening of 13 March and resume about a week
later. You will be notified by telephone at the time, and
the new telephone number for the RECON Coordinator will
be provided as soon as it is known.

RECON operational problems may be directed to the RECON
Coordinator at the NASA Scientific and Technical Information
Facility in College Park, Maryland, (Telephone: FTS (301)
779-2121 ext. 606 or 607) Other problems, suggestions and
comments may be directed to Bill Brown or Van Wente
(Telephone (202) 755-3465).

* * * RECON BULLETIN * * *

TELEPHONE NUMBERS FOR RECON COORDINATOR

The following numbers may now be used (FTS, Off Net) to contact
the RECON Coordinator, Mike Moriarty:

    Baltimore, Maryland No. (301)-796-5300
    Washington, D.C. No. (202)-621-1910.

Unless you are in the Washington Metropolitan area please use
the Baltimore number whenever possible. Using either number
you will get the switchboard operator at the Facility. You
must then ask for extension 286.

We have not yet gotten an FTS network line for the RECON
Coordinator, However, we hope to have one soon, at which time
you will be notified.

TESTING OF FRONT-END POLLING

Within the next week or two we will begin testing a front-end
polling capability that should speed response when fully opera-.
tional. This new capability will be tested during the mornings,
and the current program will be run during the afternoons and
evenings.

Hopefully, not too many problems will occur, but it is impossible
to tell. You will know when the new program is operating by the
return of a "RECEIVED..." message instead of the "PROCESSING..."
message provided by the current program. Please bear with us
during this test period, so that service may be improved in the
long run.

RECON operational problems may be directed to the RECON Coordinator
at the NASA Scientific and Technical Information Facility in
Baltimore, Maryland, (Telephone: (301)-796-5300 ext. 286) or
Washington, D.C. (Telephone: (202)-621-1910 ext. 286). Other
problems, suggestions and comments may be directed to Bill Brown
or Van Wente (Telephone: (202)-755-3465).

* * *   RECON BULLETIN   * * *

NEW ABRIDGED USERS' MANUALS

You will shortly receive one hundred copies of the new RECON Users'
Manual (Abridged Version) under separate cover. This brief manual
is intended to serve as an introduction to the use of RECON by
Center personnel. It has been kept simple to encourage people to
try RECON. For this reason, a great deal of information is not
presented that could be. Let Norm McCabe know (202-755-3465) if
you would like additional copies.

This manual can not answer all of the questions a user might have.
The answers to most questions can be obtained, however, from the
larger version of the manual supplied earlier. Hopefully, by the
time the new user has need for such reference, he will already be
able to handle a search pretty much on his own.

Please let us hear about your experiences with this manual, so that
we may do a better job in preparing the next edition.

UPDATES TO COMPLETE RECON USERS' MANUALS

Enclosed with this RECON Bulletin you will find updates to the
complete RECON USERS' MANUALS issued earlier. Please insert these
updates in the correct locations in the manuals, so that they will
be as complete and up-to-date a reference source as possible.

UNPLUGGING OF TERMINALS AT NIGHT

Please do not unplug your RECON terminal over-night unless there is
some special local reason for doing so. (Note: Unplugging is not
the same as switching off the CRT and the teleprinter, both of which
are recommended at night.) To unplug the units has several bad effects.
One is to increase the likelihood that the unit will malfunction.
Another is to cause slower response for other RECON users. Still a

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at the NASA Scientific and Technical Information Facility in Baltimore,
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755-3465.

third is to create false alarms at the Computer site to the effect that either your terminal or phone line is out of order. A corollary of this is that you are deprived of the constant monitoring of your telephone line, your modem, and portions of your control unit that takes place whenever RECON is operating.

If for some reason, you must regularly unplug your unit at night, please let us know, and we will not attempt service every morning until you have called to request it.

* * * RECON BULLETIN * * *

RECON HAS A BRAND NEW COMMAND -- SORT

Have you ever wanted to print out a list of citations in the alphabetical sequence of the authors' names or of the title? Well, now you can. This will allow you to prepare bibliographies in some order that is other than simply by accession number.

But, you must pay a price, and this is in time. The SORT command does not run fast. In fact, by current RECON standards, it runs very, very slowly. Typical sorting times start at a minimum (for only a few citations) of about twenty or thirty seconds, and they go up from there. For example, sorting about 3,500 citations on the authors' names the other day took over eight minutes.* Needless to say, with that kind of time expended, it is advisable that the number of citations sorted be kept to a minimum.

The advisability of keeping the numbers of citations sorted to a minimum is even stronger when you consider that, the way the SORT command operates, only one SORT can be running at any given time. So, if one user is doing a long SORT, all other users are prevented from doing any SORT, regardless of length. Because of this, we should not support the sorting of huge numbers of citations, even if individual users are willing to wait indefinitely for completion. So, for the present time, we have set a limit of five thousand citations per SORT. Of course, this number may be changed in the future, as we gain experience with this new feature.

The use of the SORT command is relatively simple, and its syntax is uncomplicated, unless you wish to place particular limitations on how it works. However, since there is no command button available on the RECON terminal for the SORT command, you must enter the command in long-hand by spelling out the word "SORT" (all caps). This must be followed by a space, the number of the set you want sorted, a slash (/), the field(s), and any other parameters involved.

In its simplest form, the SORT command could look like the following:

SORT 7/AU.

---

*We are compiling data on running times, and will distribute these in the form of charts, as soon as they are complete.

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This would cause the citations in set number 7 to be sorted in ascending sequence (i.e. alphabetically) by the authors' names, and would result in the creation of a completely new set, which could then be handled just like any other set. That is, you can DISPLAY it, PRINT it, TYPE it, and so forth. In fact, you could even COMBINE it with other sets, though the results would not be too useful due to anomalies in sequencing. (The COMBINE command only works on the basis of merging items that are in the same (Accession No.)order.

It is important to remember that the result of the SORT is a completely new and independent set, which is in no way dependent on any other set for its existence and/or use. Remember too, that the original set number 7 is not affected in any way and would still remain in its original sequence.

Going further into the syntax of the SORT command, the general, complete form is as follows:

SORT Set/Field-1,Order,Length/Field-2,Order,Length/. . . Field-5, Order,Length.

This general syntax is limited to the use of a maximum of five fields for sorting. Further, no field can be sorted on more than twenty characters. The order that may be specified is either ascending (A) or descending (D), with the default being the normal ascending order (i.e. A B C . . . Z) if the user does not specify an order.* If the length is not specified, the length will be assumed to be either the entire field or twenty characters, whichever is shorter.

Below we show a number of valid SORT commands, along with their interpretations.

SORT 2/RN

This will cause the citations in set number 2 to be sorted in ascending sequence by the first twenty characters of the report-number field.

SORT 12/CAT/AU/PDT

This will cause the citations in set number 12 to be sorted primarily in ascending order by subject category, secondarily in ascending order by the first twenty characters of the authors' names, and tertiarily in ascending order by the publication date.

---

*Note that if a sorted field does not appear in a citation (for example, if there is no author) that field will be treated as though it were filled with blanks, and will thus be sorted at the very beginning of an ascending-order sort (i.e. before "A"). Conversely, it would appear at the end of a descending-order sort. This affects only the field that is not present, so that, if it is secondary, tertiary, etc. it may have little or no effect.

SORT 9/AU/ACC,D,3

This will cause the citations in set number 9 to be sorted primarily in ascending order by the first twenty characters of the authors' names, and secondarily in descending order by the first three characters of the accession numbers.

SORT 6/AU,,10/ACC,,3

This will cause the citations in set number 6 to be sorted primarily in ascending order by the first ten characters of the authors' names and secondarily in ascending order by the first three characters of the accession numbers. Note that if you leave out the "A" or "D" you must use two commas in succession before the length indicator.

SORT 23/ACC,D

This will cause the citations in set number 23 to be sorted in descending order by accession numbers. Since the accession number field is shorter than twenty characters, the entire accession number field will be sorted.

Please feel free to use this new command, and let us know of any problems or anomalies you might encounter.

REORGANIZATION OF CODE KSB

As many of you know, the NASA Scientific and Technical Information Office has undergone a reorganization during the past year. The Systems Development Division and most of the Information Services Division have been combined to form the Systems and Retrieval Division (Code KSB) with Van Wente as Chief. Charles Hargrave is Assistant Division Chief and generally oversees NASA literature-search procedures, the utilization of non-NASA data bases, development of the NASA Thesaurus, as well as the indexing and abstracting procedures for STAR, IAA, SCAN, etc. Bill Brown continues to supervise RECON system improvements and handle software problems. Rex Talbert remains in charge of RECON communications development and all ADP hardware projects. General questions related to the addition of new terminals to the RECON System, the issuance of RECON manuals, and items in the RECON Bulletin should be directed to Norm McCabe, who will serve to edit this issuance in the coming year, hoping to make it more frequent and newsy. Input from RECON users of information possibly useful to other users is solicited.

MORE AND LARGER SETS MAY NOW BE ACCUMULATED

Because we have obtained a large additional amount of disk storage
space with the new computer, it has been possible to double the
USERSET space for each terminal. This means that there is twice as much
room for postings in sets you create. Whereas the limit on what you could
accumulate during a given search was a total of about 110,000 postings,
you may now accumulate approximately 220,000 postings before you will have
to begin releasing sets.

TYPE COMMAND NO LONGER A PROBLEM

The system has been modified so as to permit users to execute as many
TYPE commands as they wish without causing any delays for anyone else.
Therefore, please feel free to make whatever use of the TYPE command
that seems most appropriate for you. We appreciate the forbearance
shown by our users during the period of difficulty.

SEASONS GREETING TO ALL

* * *   RECON BULLETIN * * *

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that either your terminal or phone line is out of order. A corollary
of this is that you are deprived of the constant monitoring of your
telephone line, your modem, and portions of your control unit that
takes place whenever RECON is operating.

If for some reason, you must regularly unplug your unit at night,
please let us know, and we will not attempt service every morning
until you have called to request it.

1976

* * * RECON BULLETIN * * *

ON-LINE ABSTRACTS

Abstracts are now displayable on RECON for <u>STAR</u> and <u>IAA</u> issues from
the present time back through 1972. They may be viewed by simply
PAGEing through the normal format 2 display. (They usually occupy
the second and/or third pages.)

The abstracts are also being included in format-2 print-outs of
citations. Since this greatly increases the amount of printing,
it is more important than ever that you not print unnecessarily
large numbers of citations.

We would like your comments on the usefulness of the abstracts for
display and for print-out.

In the near future, we expect to make the abstracts text-searchable,
in the manner used for titles <u>etc.</u> in the NALNET collection (F).
This will be done as an experiment, since both its usefulness and
its effects on the system are unknown at present. We also hope to
make report titles text-searchable at a later date.

EXPLAIN COMMAND HAS BEEN CHANGED

The good old EXPLAIN command has just undergone a substantial change.
It is now possible to use the PAGE command to get from one screen-full
to the next.

In addition, new arguments or operands have been added, which should
make the command more valuable for our users. Much new information has
been added directly from the <u>RECON User's Manual</u>. Please note, however,
that some discrepancies do exist, such as references to figure numbers
that are not available on the terminal. In time, these discrepancies
will be removed from the EXPLAIN presentations.

In using the new EXPLAIN it is possible to enter the reference number
following the term in the EXPLAIN presentation instead of entering the
entire term. Thus EXPLAIN RECON can be entered either as oRECON or as
oX310.

NEWS FEATURE

In the next few days we expect to have a NEWS feature operational. This NEWS feature will provide current information on system and file status. It will be presented as a by-product of the BEGIN SEARCH command.

ASRDI SAFETY FILES ON RECON

Two of the ASRDI Safety Files are available on RECON. These are the Mechanical Structures and the Fire files. Both are available in file collections I and D. The inverted file mnemonics are as follows:

AST/ Subject Term   (This is the Default if no mnemonic
                        is entered (File Collection I only)).

AMJ/ Major Subject Term

AMN/ Minor Subject Term

ABS/ Abstract (Text)

LKS/ Links (Text)

ATX/ All Text Fields

APD/ Publication Date

AU/   Author

RN/   Report Number

CO/   Corporate Source Code

These inverted fields may be used in the same manner as usual. That is, they may be EXPANDed and SELECTed from to produce sets and combinations of sets.

NASA THESAURUS

The 1976 Edition of the NASA Thesaurus (NASA-SP-7050) has just been published. Copies have been distributed to each NASA/RECON terminal. (If you do not have a copy as yet, please call C. W. Hargrave (202) - 755-3462).

This Thesaurus edition has two new features that might prove useful in preparing RECON searches. First, an embedded hierarchy feature has been added to the Alphabetical Listing (Volume 1) that enables the Thesaurus user to view for each term the actual narrower-term and broader-term relationships. The introduction on pages vi and vii to Volume 1 describes this in greater detail. (Please note, however, that the RECON Thesaurus display still lists the narrower terms and broader terms in alphabetical order in each category.)

Another feature is the Access Vocabulary (Volume 2) that provides access (entry) terms to permutations of multiword terms, and pseudo multiword terms, and to other non-Thesaurus terms. For example, RADIOCHEMISTRY is entered in the Access Vocabulary also at "Chemistry, Radio" and AERODYNAMIC BALANCE is entered also at "Balance, Aerodynamic." The addition of the Access Vocabulary to the RECON expand or display file is now being studied.

The new Thesaurus contains all postable and non-postable terms approved through May 31, 1975. The vocabulary expand on RECON is more current than the Thesaurus as the vocabulary expand is updated monthly. The Thesaurus user is also advised to note a change that resulted from the editing process. Near-alpha Related Term cross references have been removed in many cases. For example, DISTILLATION no longer cross references to DISTILLATION EQUIPMENT. Note that the RECON user will still see the near-alpha postable terms when the vocabulary expand command is used. The range-search feature may be used to select near-alpha postable terms. Your comments on the new Thesaurus are solicited.

* * * RECON BULLETIN * * *

(TERM) FREQUENCY COMMAND NOW AVAILABLE

The (Term) FREQUENCY Command proposed several years ago has now been implemented. The long delay is a result of (1) the low priority assigned it relative to our operational problems and; (2) the command requires a SORT operation which, until recently, we simply did not have.

What It Does:

The (Term) FREQUENCY Command provides the user with a list of subject terms used in a set in descending order of frequency of use within the set. For example, if the user creates a set by SELECTing the term RUBIDIUM, and then performs the FREQUENCY Command on all terms in that set, he will see the following on his screen:

TERM FREQUENCY DISTRIBUTION - SET 01 - 263 CITATIONS - 00412 SUBJECT TERMS -

REF	SUBJECT TERM	FREQ			
F001	RUBIDIUM-----------------------	0270	F010	OPTICAL PUMPING------------	00
F002	CESIUM-------------------------	0077	F011	STRONTIUM------------------	00
F003	POTASSIUM----------------------	0067	F012	MAGNETOMETERS--------------	00
F004	METAL VAPORS-------------------	0042	F013	FREQUENCY STABILITY-------	00
F005	FREQUENCY STANDARDS-------	0039	F014	TEMPERATURE EFFECTS-------	00
F006	ALKALI METALS-------------	0038	F015	LASER OUTPUTS-------------	00
F007	ATOMIC CLOCKS-------------	0032	F016	LUNAR ROCKS--------------	00
F008	SODIUM-----------------------	0032	F017	LINE SPECTRA--------------	00
F009	CONFERENCES---------------	0027	F018	ABSORPTION SPECTRA--------	00
			F019	CESIUM VAPOR-------------	00

ENTER: MORE

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland, (Telephone: (301)-796-5300 ext. 286) or Washington, D.C. (Telephone: (202)-621-1910 ext. 286). Other problems, suggestions and comments may be directed to Norm McCabe (Telephone: (202)-755-3465).

What this indicates is that the term RUBIDIUM so SELECTed appears in **all** items in the set; that the next most often appearing term is CESIUM, used 77 times; that the next most often appearing term is POTASSIUM, used 67 times; that the next most often appearing term is METAL VAPORS, used 42 times; and so forth. Another example: having SELECTed the set RARE EARTH ELEMENTS, and having performed the (Term) FREQUENCY Command on the entire set. the following will appear on the screen:

TERM FREQUENCY DISTRIBUTION - SET 02 - 484 CITATIONS - 00643 SUBJECT TERMS

REF	SUBJECT TERM	FREQ			
F001	RARE EARTH ELEMENTS-------	0491	F010	CRYSTAL STRUCTURE---------	003
F002	ABUNDANCE----------------	0059	F011	NEUTRON ACTIVATION ANALYSI	003
				S-------------------------	
F003	CONFERENCES--------------	0053	F012	LUNAR COMPOSITION---------	003
F004	LUNAR ROCKS--------------	0047	F013	ADDITIVES----------------	002
F005	TRACE ELEMENTS-----------	0047	F014	CHONDRITES---------------	002
F006	BASALT-------------------	0044	F015	CRYSTAL LATTICES----------	002
F007	CHEMICAL COMPOSITION------	0044	F016	ENERGY TRANSFER-----------	002
F008	LUNAR SOIL---------------	0044	F017	METEORITIC COMPOSITION----	002
F009	TRANSITION METALS---------	0035	F018	SINGLE CRYSTALS----------	002

ENTER: MORE

Thus, the user can see which terms tend to be used most often in any set, and which terms tend to co-occur with others. This command may be used with sets resulting from COMBINE operations and with sets SELECTed from Author. Contract Nos., or anything else.

It is possible to PAGE through the entire list of terms, and to SELECT any term which appears by using its "F" number (such as "SELECT F009"). Any such SELECT will, of course, have the effect of SELECTing all items posted to that term.

Also, please note that terms that do not occur at least twice in a set are discarded by the FREQUENCY Command.

A Redisplay option is also available. It inables the user to redisplay the previously created (Term) FREQUENCY Display without having to invoke the full (Term) FREQUENCY Command. The response time for the Redisplay option is considerably less than the full (Term) FREQUENCY Display option.

When to Use It:

The purpose of the FREQUENCY Command is to enhance the effectiveness of RECON searches by providing the user an additional search tool. The function of the command is to produce a frequency distribution for the subject terms in a given set of accessions. During the course of a search, the user produces sets by means of the SELECT, COMBINE, LIMIT, or KEEP Commands. The user determines that it would facilitate the search to discover what subject terms occur most frequently within a given set. It is clear to the user that at least one subject term--the term for which the set or a predecessor set was selected--is present in every record. To achieve more than this trivial information, the user must utilize the FREQUENCY Command. The command will produce a frequency distribution of subject terms contained in the linear records identified by the postings in the set. The user will learn from the distribution whether terms are frequently or infrequently associated. This

will enable him to achieve higher recall or higher precision in his search. The intended result is a more rapid, comprehensive and effective search.

How to Use It:

Since there is no command button for the (Term) FREQUENCY Command, the user must enter the command from the keyboard. To do so, simply type in the command name (FREQUENCY), or abbreviation (FR or FREQ), followed by a space, followed by the number of the set. This may be optionally followed by a designation of the kind of terms (ALL, MJ, or MN) in which the user is interested. This may be followed by the number of items in the set that the user wishes to sample (up to a maximum of 500). The set number and optional fields must be separated by slashes (/).

The following are samples of valid FREQUENCY Commands:

FREQUENCY 7/MJ/250

FREQ 5/ALL/500

FR 6/MN   (500 is assumed)

FR 3   (ALL/500 is assumed)

FREQUENCY 46//100   (ALL is assumed)

The following are samples of invalid FREQUENCY Commands:

FR5   (No space between the command and
                             the set number)

FREQUENCY 13/200   (Need a double slash when type is
                             not entered)

FRE 5   (Invalid command abbreviations;
                             only FR and FREQ are valid)

Note that the (Term) FREQUENCY Command sorts subject terms in the group of citations sampled. Thus, for fifty citations, it may have to sort more than five hundred terms. Consequently, execution time for the (Term) FREQUENCY Command will be long (you should expect to wait at least 90 seconds for a sampling of 500 terms).

If you wish to perform a (Term) FREQUENCY Command on a large set, not all citations will be used. A maximum of 500 citations is currently in effect. This results in a sampling of citations from sets of greater than 500 items.

Redisplay Option:

The Redisplay option is used to display the first page of a (Term) FREQUENCY Display previously created in the user's search. This option is much more efficient and quicker than completely re-creating the display. In order to invoke the Redisplay option, the user enters the command code (FRE-QUENCY, FREQ, or FR) followed by at least one blank; then the set number followed by an "R". The following is an example of the FREQUENCY Redisplay option:

<div align="center">

FR 3R

</div>

The user may request Redisplay of the (Term) FREQUENCY Display after intervening commands, without requiring complete re-execution of the original FREQUENCY Command. Each frequency display will be retained in intermediate

storage until the next DISPLAY or FREQUENCY Display is written over it.   In
order to call for redisplay of the most recent frequency display to the
terminal, the user will enter a FREQUENCY Command in redisplay "R" format,
as described above.   Redisplay of a frequency display may be invoked for a
set that has been released, provided no other FREQUENCY or DISPLAY Commands
have intervened.   The alternative is to local print the frequency display
prior to invoking a DISPLAY or another FREQUENCY Command, to preserve the
frequency display for later use.

Note that there are a few irregularities still existing in the (Term)
FREQUENCY Display.   These anomalies will not seriously effect the (Term)
Frequency Display results and will be corrected in the near future.

ESTIMATING SORT-EXECUTION TIMES

In order to provide a basis for estimating SORT execution times prior to actually entering a SORT Command, execution time statistics for SORT operations on sets of varying sizes and numbers of sort fields were accumulated over a one month period. These statistics have been charted and the results are herein presented. Due to the relatively small sample size, these results should be used only for making generalized estimates and should not be considered accurate in all possible cases.

The data sample was generated by repeatedly sorting sets of selected sizes on a daily basis. Set sizes sorted varied from 100 items to 4600 items. The number of sort fields varied from 1 to 5 fields. It was found that the number of sort fields has no significant effect on SORT execution time.

Figure 1 is a graphical representation of the result. All points on the graph are plotted on a rectangular coordinate system. In the graph, the number of items contained in the set being sorted is plotted along the y-axis. SORT Command execution time in minutes is plotted along the x-axis.

Maximum and minimum execution times for each set in the sample were determined. Successive points were connected to form an execution time interval. This time interval, illustrated in Figure 1 as the difference between the maximum execution times and the minimum execution times, defines

the range. The range is a measure of the variation in execution time for each set being sorted. This variation is due to system load at the time when the SORT Command was being executed.

EXAMPLE:

The following paragraphs illustrate the use of the graph to estimate the amount of time it will take to execute SORT Commands.

Suppose you have created a set of citations indexed to the subject term GAS TURBINES and have received the following message:

SET	REC.	OCC	DESCRIPTION OF SET
1	2216	2216	ST/GAS TURBINES

You may want to view citations or accession numbers in some order other than by accession number, for example, in an order alphabetized by author's name or by report number. You can sort the set as follows:

SORT 1/AU/RN

This command will cause the citations in set number 1 to be sorted primarily in ascending sequence by the author's name and secondarily in ascending sequence by report number.

You may use the graph of Figure 1 to estimate the execution time for sorting your set of 2216 items. To do so, locate the set size on the y-axis. Extend a line from this point parallel to x-axis until it intersects the curves. The two intersect points represent the minimum expected execution time (which is 8.2 minutes). Consequently, execution time may vary by 3.3 minutes depending on the system load.

SORT COMMAND EXECUTION TIMES

Number of Items

Minimum Sample
Execution Times

Maximum Sample
Execution Times

Execution Time (Minutes)
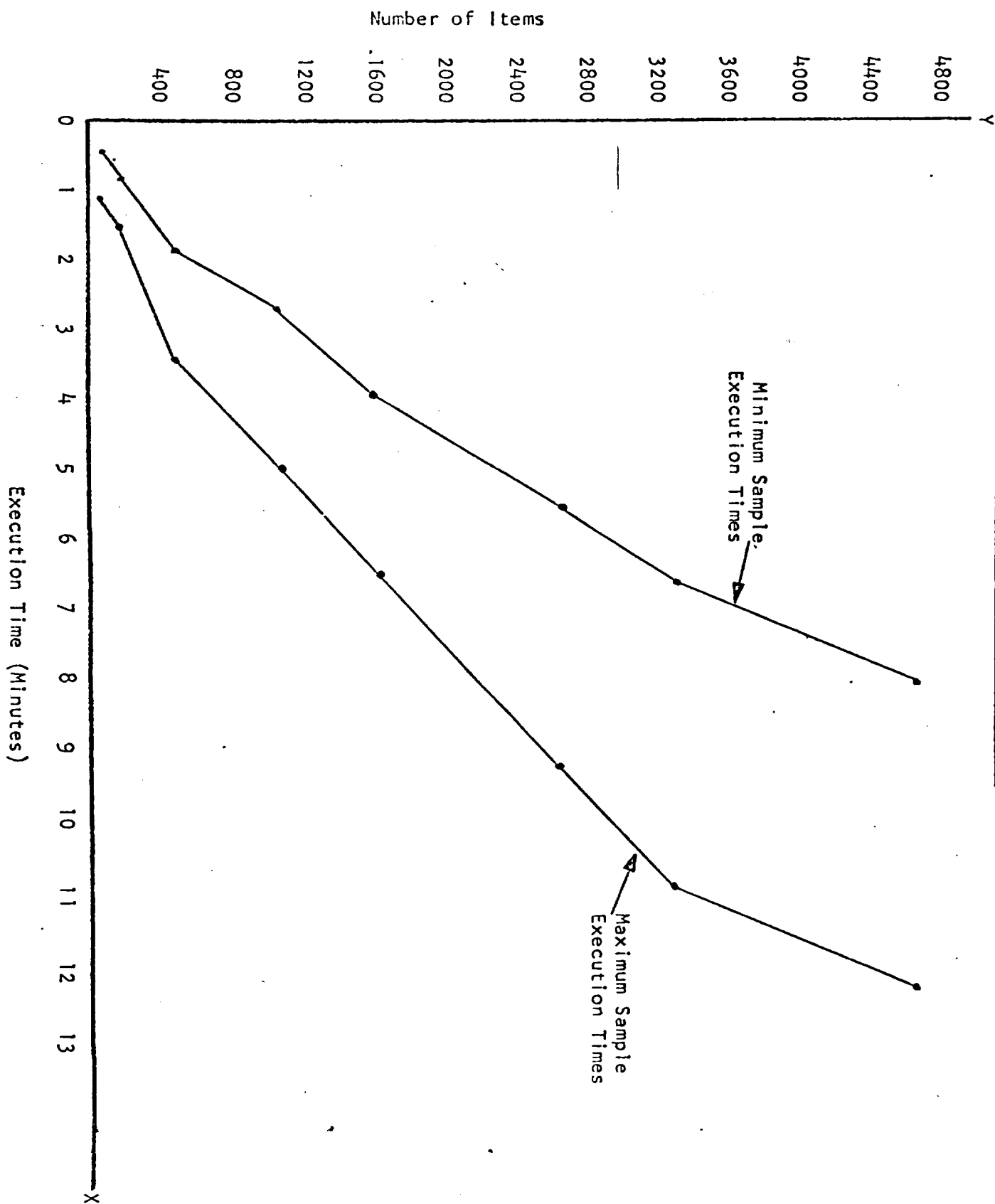
FIGURE 1

1977

* * * RECON BULLETIN * * *

COMPENDEX FILE NOW AVAILABLE

RECON terminals located at NASA Centers (and at JPL) now have the
capability to search the COMPENDEX (Engineering Index) data base.
Others will not be able to access this information due to the agree-
ments required by the vendor. The period currently covered is
January 1969 through June 1976. Updating will continue.

Access and use of this data base are relatively simple. First, you
must select File Collection J during the BEGIN-SEARCH operation.
Then, you may search the file using the following mnemonic inverted
file prefixes for your commands.

Mnemonic Prefix	Meaning	Comment
EAU/	Author	Authors are not in a con-trolled format. Complete given names, or any other variation may be present.
ETL/	Title	Text searchable field of all (nontrivial) words in titles.
EHD/	Main Subject Heading	Text searchable field of all (nontrivial) words in the Main Heading (controlled vocabulary).

RECON operational problems may be directed to the RECON Coordinator at
the NASA Scientific and Technical Information Facility in Baltimore,
Maryland, (Telephone: (301) 796-5300 ext. 286) or Washington, D.C.
(Telephone: (202) 521-1910 ext. 286). Other problems, suggestions, and
comments may be directed to Norm McCabe (Telephone: (202) 755-3465).

Mnemonic Prefix	Meaning	Comment
ESB/	Subject Sub-Heading	Text searchable field of all (nontrivial) words in Sub-Headings, indicative of the most important aspect of Main Subject Heading (controlled vocabulary)
EFL/	Free-Language Terms	Text searchable field of all (nontrivial) words in Free-Language Terms (i.e., noncontrolled vocabulary)
ECR/	Cross-Reference Terms	Text searchable field of (controlled vocabulary) subject headings and sub-headings that are not the main subject entry.
ETX/	All Text	All words in all text searchable fields. Can not be phrase or proximity searched. This is the default (automatic) option if no prefix mnemonic is used.

The relationships between the Main Heading (EHD/) field, the Sub-Heading (ESB/) field, and the Cross-Reference Terms (ECR/) field are as follows:

1. The Main Heading (EHD/) field and the Sub-Heading (ESB/) field, taken together, represent the principal subject entry for the citation.

   The Main Heading (EHD/) itself is the principal MAIN Subject taken from the publication, Subject Headings for Engineering (SHE). The Sub-Heading (ESB/), taken by itself, is the most important aspect of the Main Heading (EHD/), and is taken

from the Sub-Headings contained in the publication, <u>Subject Headings for Engineering (SHE)</u>.

2. The Cross-Reference (ECR/) field represents secondary subject headings for the citation. The Cross-Reference (ECR/) field is composed of a Main Subject heading taken from the <u>SHE</u>, and possibly a related sub-heading taken from the <u>SHE</u>.

3. The Main Heading (EHD/) field and the Sub-Heading (ESB/) field each may occur only one time per citation since, taken together, they represent the most important subject entry for the citation.

The Cross-Reference (ECR/) field may occur several times, and may thereby represent a number of subject entries of lesser importance.

A copy of the publication, <u>Subject Headings for Engineering (SHE)</u>, will be provided each location under separate cover. This publication is the authority for the COMPENDEX controlled vocabulary used for subject indexing.

The table below is the entire list of fields contained in COMPENDEX citations. Field numbers and mnemonics for RECON SPECIFY-FORMAT use are also given.

No.	Code	Field
1	ACC	ACCESSION NUMBER
2	EID	ENGINEERING INDEX DOCUMENT NUMBER
3	MPN	MONTHLY PUBLICATION NUMBER
4	ITM	ITEM NUMBER
5	CDN	CODEN DESIGNATION
6	MUR	MICROFICHE CODE
7	UTL	TITLE
8	HED	MAIN SUBJECT HEADING
9	SUB	SUBHEADINGS
10	AU	AUTHORS
11	PAA	AUTHOR AFFILIATION
12	CIT	CITATION
13	CAL	CARD-A-LERT CODES
14	CRT	CROSS-REFERENCE TERMS
15	FLT	FREE-LANGUAGE TERMS
16	ABS	ABSTRACT
17	DDT	DELETION DATE

* * * RECON BULLETIN * * *

FREE-TEXT SEARCH OF ONLINE ABSTRACTS AVAILABLE

It is now possible to do free-text searching of the online <u>STAR</u> and <u>IAA</u> abstracts. Although not all available data (<u>i.e.</u>, 1972 – present) are yet inverted, the most recent ones are, and most of the total is available.

Additions are being made as computer time permits, so that the file is growing and should be complete for the entire 1972-77 period within a few more months.

There are actually three separate fields that are available for text searching, these are the Analytic Item, the Analytic Note, and, of course, the Abstract fields. There is also the capability to search all three fields at once.

Required mnemonic prefix codes are as follows:

Code	Field	Comments
AI/	Analytic Item	
AL/	Analytic Note	
AX/	Abstract	
TX/	All Text (All three of above)	NOTE: Phrase searching and proximity searching cannot be performed using the TX/ prefix.

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland, (Telephone: (301) 796-5300 ext. 286) or Washington, D.C. (Telephone: (202) 621-1910 ext. 286). Other problems, suggestions, and comments may be directed to Norm McCabe (Telephone: (202) 755-3465).

The free-text search capability described here works the same as the free-text search capability available for so long with the NALNET files. Phrase and proximity searching is the same as with NALNET, and the restriction to single-word searching for all text fields combined also is the same.

FULL BEGIN-SEARCH IS REQUESTED FOR DIAL-UP USE

It would simplify the work of the people at the computer site and assure more valid statistics if all dial-up users would always do a full BEGIN-SEARCH rather than a BEGIN-SEARCH BYPASS. A simple identification is plenty. We would appreciate your help on this.

USE ONLY FORMAT 4 FOR SPECIALLY FORMATTED OVERNIGHT PRINTING

Please use Format 4 in conjunction with the SPECIFY-FORMAT command for specially formatted overnight prints. Although Format 5 (the multiple-citation display format) is useful for online viewing of more than one citation at a time, it is not available as a PRINT format. Use Format 4 for PRINT's, and you will receive the same output format as that specified for Format 5.

*** RECON BULLETIN ***

CALL FOR PAPER

We have been receiving a number of comments and complaints concerning RECON operation, usefulness, and new capabilities. However, most of these have been by telephone and through third parties, and thus tend to be vague.

We are most interested in our users' problems, requirements, and even desires. But we want the most accurate information possible regarding them. Therefore, we are asking for your cooperation.

If you use RECON, please, please take the time to sit down and commit the following kinds of information to paper:

1. Approximately how much you use RECON yourself.

2. What kind of terminal you use (Bunker-Ramo or other).

3. What you consider its worst problems.

4. What you consider its worst limitations.

5. What you consider its greatest inconvenience in use.

6. What you consider its best features/capabilities.

7. What you use it for most.

8. What you would like to use it for most.

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland, (Telephone: (301) 796-5300 ext. 286) or Washington, D.C. (Telephone: (202) 621-1910 ext. 286). Other problems, suggestions, and comments may be directed to Norm McCabe (Telephone: (202) 755-3465).

9. What additional capabilities you would like to see
   added to it.

10. Anything else you think we should know about <u>your</u> use
    of the system.

Please do not feel constrained to answer all of the above, but **only**
let us have your specific ideas. Any format will do.

We do <u>not</u> want a unified, staffed position of your organization. **We**
want the ideas and problems directly from the working level, that **is**
from the people who actually push the buttons on the terminal, **if**
possible without editing.

If management-level input is felt to be a necessity, please feel **free**
to send it on to us, but please identify it as such.

Please send this information to Bill Brown, Code KSB, NASA Headquarters,
Washington, D. C. 20546.

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November 4, 1977

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NEW RECON BULLETIN

Despite its being numbered 77-4, this is the first issue of a new-style RECON Bulletin. The new version will be more frequent and more "newsy." It will include items about RECON events while still in their planning and developmental stages and will give more feed-back about how RECON is doing. In addition, the Bulletin eventually will be expanded to cover related information about the rest of the NASA scientific and technical information system and about RECON-related matters at other places.

We are particularly anxious to make the RECON Bulletin a medium for sharing information between users. Please submit any and all such sharable items you may have to Norm McCabe at the address below (always given on the first page of the Bulletin).

Of course any comments you may have about RECON, whether general or specific, are always welcome.

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland, (Telephone: (301)-796-5300 ext. 286) or Washington, D.C. (Telephone: (202) 621-1910 ext. 286). Other problems, suggestions and comments may be directed to Norm McCabe (Telephone: (202)-755-3465), Code KSB, NASA Headquarters, Washington, D.C. 20546.

METADEX FILE NOW AVAILABLE

RECON terminals located at NASA Centers (and at JPL) now have the capability to search the METADEX (Metals Index) data base. This data base represents the monthly index of metallurgy and metals, published by the American Society for Metals and the London Institute of Metals. Entries are selected from more than 1,000 journals, reports, and proceedings. The period currently covered is January 1976 through August 1977. The METADEX file will be continuously updated with current data through calendar year 1978. In addition, METADEX back file data for the years 1966-1975 will be added to the file during the next several months.

Access and use of this data are relatively simple. First, you must select File Collection K during the BEGIN-SEARCH operation. Then, you may search the file using the following mnemonic codes.

Code	Field
MAU	Author Index
MTL	Title (Text)
MDR	Descriptors (Text)
MAD	Alloys Descriptors (Text)
MTX	All Text

The table below contains the entire list of fields contained in METADEX citations. Field numbers and mnemonics for RECON SPECIFY-FORMAT use are also given.

No.	Code	Field
1.	ACC	Accession Number
2.	MID	Metals Index Document Number
3.	UTL	Title
4.	AU	Author
5.	CIT	Citation (Document Source)
6.	DCR	Descriptors
7.	ADC	Alloys Descriptors
8.	DDT	Deletion Date

COMPENDEX is also online. For information on COMPENDEX searching, refer to NASA/RECON Bulletin 77-1, dated April 29, 1977.

DATA FLAGGING AND TAGGING PROJECT

The NASA Scientific and Technical Information Office, with support from the National Science Foundation, is conducting a Data Tagging and Flagging Experiment aimed at improving users' access to the numeric data reported in the aerospace literature.

All accessions in the following subject categories for 1977 STAR/IAA Issues 05 - 10 have been analyzed for numeric data content: 02 Aerodynamics: 24 Composite Materials: 26 Metallic Materials: 27 Nonmetallic Materials: 71 Acoustics: and 74 Optics.

Data summaries and data terms have been produced for essentially all accessions in these categories, for a total of 1618 accessions with summaries. The standard data summary consists of three elements: (1) Narrative statement, (2) Listing of major data variables, and (3) Summary of data representations (figures and tables). Special data summaries are prepared for accessions to documents containing either zero numeric data or excessive numeric data. The data summary immediately follows the abstract. In addition, data terms, utilizing the NASA Thesaurus terminology, have been derived from the major variables listed in the data summary. The data terms appeared in the subject index to the above-mentioned issues, but were not uniquely labeled.

```
77N14843*# ISSUE 5  PAGE 675   CATEGORY 74   NASA-CR-150117
ITEK8-29949-FRI-VOL-2A
UNCLASSIFIED DOCUMENT
     SPACE TELESCOPE OPTICAL TELESCOPE ASSEMBLY/SCIENTIFIC INSTRUMENTS.
PHASE B  PRELIMINARY DESIGN AND PROGRAM DEFINITION STUDY.  VOLUME 2A
FOCAL PLANE CAMERA  FINAL REPORT
     ITEK CORP., LEXINGTON, MASS.   AVAIL.NTIS   HC A06/MF A01
     /*SPACEBORNE TELESCOPES/*TRADEOFFS/ ELECTROMAGNETIC FIELDS/
FOCUSING/ LENSES/ MIRRORS/ OPTICAL
EQUIPMENT/**COOLING/**CYCLES/**DIAMETERS/**MODULATI ◄────────── DATA TERMS
ON/**REFRACTION/**TEMPERATURE MEASUREMENT/**TIME/**WAVELENGTHS        (preceded by
     ABA AUTHOR                                                     double asterisks)
     ABS TRADE STUDIES WERE CONDUCTED TO ENSURE THE OVERALL FEASIBILITY
OF THE FOCAL PLANE CAMERA IN A RADIAL MODULE. THE PRIMARY VARIABLE IN
THE TRADE STUDIES WAS THE LOCATION OF THE PICKOFF MIRROR, ON AXIS
VERUS OFF-AXIS. TWO ALTERNATIVES WERE (1) THE STANDARD
(ELECTROMAGNETIC FOCUS) SECO SUBMODULE, AND (2) THE MOD 15 PERMANENT
MAGNET FOCUS SECO SUBMODULE. THE TECHNICAL AREAS OF CONCERN WERE THE
PACKAGING AFFECTED PARAMETERS OF THERMAL DISSIPATION, FOCAL PLANE
OBSCURATION, AND IMAGE QUALITY.
DATA SUMMARY ──► SUM ENCIRCLED ENERGY AND POINT SPREAD FUNCTIONS OF THE FOCAL PLANE
CAMERA AT 325 NM; VARIABLES ARE RELATIVE INTENSITY, IMAGE DIAMETER,
MODULATION TRANSFER, CYCLES, TIME, INDEX OF REFRACTION, WAVELENGTHS,
COOLING CAPACITY, TEMPERATURE DIFFERENTIAL; 23 FIGURES INCLUDE NUMERIC
DATA.
```

RECON Sample of a Data Flagged and Tagged Accession

Data Tagging and Flagging Project (Cont)

The data terms and data summaries may be searched on NASA/RECON as follows:

a) Data terms only may be searched by using the prefix DT/. The standard (default) subject term file contains data terms in addition to major and minor terms. Thus, use of this standard file without specifying DT/, MJ/, or MN/ will yield all three types of terms as posted.

b) Data summaries are not uniquely searchable on NASA/RECON. However, the narrative statement and the major data variables within the data summary may be text searched using the prefix DS/.

c) Of course, both of these may be text searched (along with abstracts, etc.) by using the "all text" prefix, TX/.

Field numbers and mnemonics for RECON Specify Format for the data terms and data summaries are listed below:

NO.	CODE	FIELD
42	TRM	DATA TERMS
47	SUM	DATA SUMMARY

THE RECON NEWS FEATURE

News of interest to NASA/RECON users is available through the RECON NEWS feature. NEWS is displayed automatically following a full BEGIN-SEARCH command or can be obtained by entering an EXPLAIN command with the NEWS operand.

Presently, the NEWS capability is limited to a maximum of 800 characters.

Plans are to update the NEWS feature as often as daily.

TITLE SEARCHING TO BE AVAILABLE

Following completion of the file loading of <u>STAR</u> and <u>IAA</u> abstracts as text-searchable files last June, our programmers and file managers have been working on a similar capability for the titles of items. Extension of title searching back to 1962 data (as opposed to 1972 for abstracts) has been a complicating factor, but this new capability is currently planned for RECON users in December 1977.

1978

NASA Recon User's Bulletin

National Aeronautics and
Space Administration

**Scientific and Technical
Information Office**

78/1

FEBRUARY 1978

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**NSA, DOE Share
Systems**

Interconnecting Federal information systems has long been a dream.
As a first step, NASA's Scientific and Technical Information Office
and DOE's Office of Technical Information have agreed to offer
mutual dial-in access to each other's RECONs through the exchange
of passwords. Phase I of this arrangement provides such access to
six NASA locations, which are Ames Research Center, Lyndon B.
Johnson Space Center, Lewis Research Center, George C. Marshall
Space Flight Center, Headquarters, and the Scientific and Technical
Information Facility.

We extend welcome to new users at six DOE installations. They are:
Argonne National Laboratory, DOE Technical Library, Lawrence
Berkeley Laboratory, Lawrence Livermore Laboratory, Sandia Labora-
tories, and DOE Technical Information Center.

**How To Get
More Copies**

Starting with this issue, 3 copies of the NASA/RECON Bulletin will
be sent to each NASA/RECON terminal location. If you would like to
have more copies, fewer copies, copies sent to a different address,
etc., please make your desires known to Norm McCabe, NASA HQ,
Code NST-6, Washington, D.C. 20546 (AC 202-755-3465).

RECON Now
Searches Titles

Now you can search title fields, title supplement fields, title
extension fields, and notation of content fields in the follow-
ing prime data base files: IAA, STAR, CSTAR, CPA, OCSTARE, and
OSTARE. Text searching of titles is available for file
collections A, B, and D for 1972 accessions to date.

Code prefixes required for expand and select access to these
new fields are as follows:

Prefix Codes	Inverted File Field
ATL	Search of all new title related fields.
UTP	Search only unclassified titles.
TSP	Search only the title supplement field.
TEP	Search only the title extension field.
NOC	Search only the notation of content field.

It is noted that access to title related fields is not supported
by the all text prefix (TX).

Plans are also being made to provide the same title searching
capability for the analogous alternate data base fields. They
are IAAA, STARA, CSTARA, OSTAR, and OCSTAR. The alternate
files will be title searchable as soon as the indexes are
completed. Additional documentation will be distributed using
an update package to the RECON User's Manual, Complete Version.

Teleprinter Repairs
at Bunker-Ramo
Stations

Until March 1, 1978, procedures for obtaining maintenance service
on the Texas Instruments Incorporated Silent 700 Printers remain
the same as they have been in recent years, i.e., call Data
Access Systems Incorporated. This service is provided for under
Informatics Information Systems Company Purchase Order Number 9322.

Procedures for obtaining such service after March 1st will be
announced both on "RECON News" and in the next Bulletin.

Using Lockheed, SDC

Access to Lockheed and SDC search services using the NASA Facility
for NASA Headquarters and NASA Centers has been extended for the
remainder of 1978. Requests should be submitted to the Facility
(Attn: Retrieval) by the library of the requesting organization.
Search by subject (or other criteria) may be made against the
data bases included in the appended Lockheed/SDC Data Base Listing.
The Facility will search the most appropriate data bases consis-
tent with the subject scope of the search.

These lists will be updated as necessary in future issues of the
RECON User's Bulletin.

B= BRS

ONLINE DATA BASES (L = Lockheed, S = SDC)*

DATA BASE NAME	SUBJECT AND SCOPE	VENDOR	COVERAGE (ENTRY YEAR TO PRESENT)	UPDATE FREQ'Y
Abstract Bulletin of the Institute of Paper Chemistry	Principles, technologies, raw materials, products; practices of manufacturing and utilizing industries; from the Institute of Paper Chemistry	S	Jan 1968	Monthly
AGRICOLA	Cataloging and indexing (CAIN) data base providing worldwide coverage of agriculture; from the National Agricultural Library	L S	Jan 1970 Jan 1970	Monthly Monthly
AIM/ARM	Abstracts of Instructional and Research Materials in vocational and technical education; now updated with ERIC on L; from the Center for Vocational Education	L	1967-1976	Closed
Air Pollution Abstracts	Air quality and air pollution prevention and control; from EPA	L	Jan 1966	Monthly
America: History and Life	Covers current periodical literature on American and Canadian history and American and Canadian area studies, including current affairs; from ABC-Clio, Inc.	L	Jan 1964	Quarterly
Aquatic Sciences and Fisheries Abstracts	Oceanography, pollution, freshwater biology and limnology as well as legal, political and social topics related to sea and inland water studies; from FCA and UNESCO	L	Jan 1975	Monthly
Artbibliographies Modern	Covers publications in the field of modern art and design in the period of 1800 to the present; from ABC-Clio, Inc.	L	Jan 1974	Quarterly

*Extracted and updated from the Bulletin of the American Society for Information Science, Vol. 3 No. 5

Biological Abstracts	Worldwide coverage of the life sciences; from BioSciences Information Service	L S	Jan 1972 Jan 1972	Jan 1972 Biweekly
CA Subject Index Alert	General subject index headings and CAS Registry Numbers for documents covered by Chemical Abstracts; from CAS	L S	Jan 1972-76 In progress	Closed To be Announced
Chemical Abstracts	Bibliographical data and keyword phrases for chemistry and chemical engineering; from Chemical Abstracts Service (CAS)	L S	Jan 1970 Jan 1972	Monthly Biweekly
CHEMICAL INDUSTRY NOTES	Extracted from business-oriented periodicals dealing with recent events in the chemical industry; from Predicasts, Inc., and CAS	L S	Dec 1973 Jan 1972	Weekly Biweekly
CHEMNAME	CAS Registry Numbers, CA Index Names, molecular formulas and synonyms for chemical substances covered by CASIA; from CAS and Lockheed	L	Jan 1972	Monthly
CHILD ABUSE AND NEGLECT	Material of interest in field	L	1977	Semiannual
CLAIMS/CHEM	U.S. chemical and chemically-related patents plus some foreign equivalents; from IFI/Plenum Data Company	L	Jan 1950	Monthly
CLAIMS/CLASS	Classification code and title dictionary covering all classes and selected sub-classes of the U.S. patent classification system; from IFI/Plenum Data Company	L	Jan 1950	Semiannual
CLAIMS/GEM	U.S. general, electrical, and mechanical patents; from IFI/Plenum Data Company	L	Jan 1971	Monthly
Commonwealth Agricultural Bureaux Abstracts	Comprehensive coverage of literature related to the agricultural sciences; from Commonwealth Agricultural Bureaux	L	Jan 1973	Monthly

Comprehensive Dissertation Index	Doctoral dissertations from accredited universities (predominately U.S.); from Xerox University Microfilms	L S	1861 1861	Monthly Monthly
Congressional Record	Covers the contracts awarded by the Federal Government related to defense and the space industry; from Capitol Services	S	Jan 1976	Weekly
Current Research Information System	Covers current research in agricultural and related areas; from USDA Cooperative State Research Service	L	Jul 1974	Monthly
Defense Market Measures System	Covers U.S. Dept. of Defense contract award and includes such data as receiving contractor, awarding agency, and dollar amount of contract; from Frost and Sullivan	L	Jan 1975	Quarterly
EIS PLANTS	Data and classification of 110,000 industrial plants in the continental U.S., from Economic Information Systems, Inc., and Predicasts, Inc.	L	Current	Quarterly
Energy Information Abstracts	Covers energy economics, U.S. policy and planning, research and development, resources and reserves, environmental impact, transmission and storage of electric power and fuel; from Environment Information Center, Inc.	S L	Jan 1971 Jan 1971	Bimonthly Bimonthly
Engineering Index* (COMPENDEX)	The COMPuterized ENgineering InDEX data base covering engineering literature; from Engineering Index, Inc.	L S	Jan 1970 Jan 1970	Monthly Monthly
Environment Abstracts	Covers environmental literature from interdisciplinary perspective-science, technology, politics, sociology, commerce, law; from Environment Information Center, Inc.	L S	Jan 1971 Jan 1971	Monthly Monthly

*This file is also available for online searching using NASA/RECON.

Environmental Periodicals Bibliography	Covers approximately 260 journals publishing articles related to the environment and indexes all tables of contents; from ABS-Clio, Inc.	L	Jan 1973	Bimonthly
ERIC	Complete data base on research and journals in the field of education, including Current Index to Journals in Education and Resources in Education; from the Educational Resources Information Center	L S	Jan 1966 Jan 1966	Monthly Monthly
EXCEPTIONAL CHILD EDUCATION ABSTRACTS	Literature dealing with education of handicapped and gifted children; from the Council for Exceptional Children	L	Jan 1966	Quarterly
F&S INDEXES (FUNK & SCOTT)	Concise information and references to articles relevant to all aspects of business and economics; from Predicasts, Inc.	L	Jan 1972	Monthly
FEDERAL INDEX	Covers U.S. Government activity from the Congressional Record, Federal Register, Commerce Business Daily, Presidential Documents and the Washington Post, with citations to the Code of Federal Regulations, the United States Code and congressional bills; from Predicasts, Inc.	L	Oct 1976	Monthly
Food Science and Technology Abstracts	International coverage of food science and related technologies, from IFIS	L S	Jan 1969 Jan 1969	In progress In Progress
FOUNDATION DIRECTORY	Descriptions of over 2,500 foundations with assets exceeding $1 million; from the Foundation Center	L	Current	Semiannually
FOUNDATION GRANTS INDEX	Cumulation of grants records of more than 400 U.S. philanthropic foundations; from the Foundation Center	L	Jan 1973	Bimonthly

GEO-REF	Geosciences; from American Geological Institute	S	Jan 1967	Monthly
Government Reports Announcements (NTIS)	Covers a broad range of disciplines of over 240 government agencies; from the National Technical Information Service	L S	Jan 1964 Jan 1970	Biweekly Biweekly
Grant Information System	Covers grants offered by federal, state, and local governments, commercial organizations, associations and private foundations in over 88 disciplines; by Oryx Press	S	Current	Monthly
Historical Abstracts	Covers the world's cultural, diplomatic, intellectual, political and social history for the period 1775-1945. Since 1971, scope has been expanded to cover the period 1450 to present; from ABS-Clio, Inc.	L	Jan 1973	Quarterly
INFORM	Abstracted Business Information covering business, finance, and related fields; from ABI	L S	Aug 1971 Aug 1971	Monthly Monthly
INSPEC-ELEC/COMP	Worldwide coverage of electrical engineering, computer science, and control engineering, with an online thesaurus; from the Institution of Electrical Engineers (IEE)	L	Jan 1969	Monthly
INSPEC-PHYSICS	Worldwide coverage of physics including an online thesaurus from IEE	L	Jan 1969	Monthly
INTERNATIONAL STATISTICS	Time series and forecasts on foreign economics, demographics, finance, and production; from Predicasts, Inc.	L	Jan 1972	Varies
ISMEC	Information Service in MEChanical Engineering plus engineering management, including an online thesaurus; from Data Courier, Inc.	L	Jan 1973	Monthly

Language and Language Behavior Abstracts	Covers the world literature on speech and language pathology; from Sociological Abstracts, Inc.	L	Jan 1973	Quarterly
LIBCON/E, LIBCON/F (MARC)	Cataloging of English language and foreign language books; from the Library of Congress and various participating libraries	S	Jan 1965	Weekly
LISA	Covers the field of library and information science; from the Library Association	L S	Jan 1969 Jan 1969	Bimonthly Bimonthly
Management Contents	Covers journal literature of business and management; from G.D. Searle	S	Sep 1974	Monthly
Metals Abstracts* (METADEX)	Worldwide metallurgical literature, including Metals Abstracts Index and Alloys Index. An online thesaurus is provided; from the American Society for Metals	L	Jan 1966	Monthly
Meteorological and Geoastrophysical Abstracts	Meteorological and geoastrophysical literature from both U.S. and foreign sources; from the American Meteorological Society and the National Oceanic and Atmospheric Administration	L	Jan 1972	Monthly
National Information Center for Educational Media	Covers non-print educational media; from University of Southern California (USC)	L	Jan 1964	Monthly
Oceanic Abstracts	Worldwide coverage of oceanography and marine-related literature; from Oceanic Abstracts and the National Oceanic and Atmospheric Administration	L	Jan 1964	Bimonthly
PAIS	International coverage of public affairs literature; from PAIS	L	Jan 1976	Monthly

*A section of this file is available for online searching through NASA/RECON for NASA Centers that are Metals Abstracts subscribers.

Patent Concordance	Correlates patents issued by different countries for the same basic invention; from CAS	L	Jan 1972	Semiannual
Petroleum Abstracts	Exploration and production of gas and oil, geology, geophysics, and geochemistry; from University of Tulsa; restricted availability	S	Jan 1965	Quarterly
Petroleum/Energy News	Business news in petroleum and energy; from American Petroleum Institute	S	Jan 1975	Weekly
Pharmaceutical News Index	Indexing records for four major drug industry newsletters; from Data Courier, Inc.	L S	Dec 1975 FDC Rep.-Jan 1974, others Jan 1976	Monthly Monthly
Pollution Abstracts	Covers all types of literature on pollution, its sources, and its controls; from Data Courier, Inc.	L S	Jan 1970 Jan 1970	Bimonthly Monthly
Psychological Abstracts	Coverage of the world literature in psychology and other behavioral sciences; from the American Psychological Association	L	Jan 1967	Monthly
SAE Abstracts	Covers papers concerned with self-propelled vehicles and applicable to the aerospace, transportation, and automotive industries; from Society of Automotive Engineers, Inc. (SAE)	S	Jan 1965	Quarterly
Science Citation Index	Multidisciplinary index to the literature of science and technology; from the Institute for Scientific Information	L	Jan 1974	Monthly
Smithsonian Science Information Exchange	Summary research project descriptions in all disciplines; from SSIE, Inc.	S L	Fiscal Year 1974	Monthly
Social Science Citation Index	Multidisciplinary index covering the world's most important social science journals; from the Institute for Scientific Information	L	Jan 1972	Monthly

Sociological Abstracts	In-depth coverage of sociology and related social science areas; from Sociological Abstracts, Inc.	L	Jan 1963	Quarterly
World Aluminum Abstracts	Covers technical literature on aluminum, ranging from ore processing (exclusive of mining) through end uses; from the American Society for Metals (ASM)	L	Jan 1968	Monthly

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MARCH 1978

CONTENTS

NALNET Periodicals File

Printer Maintenance (Bunker-Ramo Terminals)

Literature Search Printout Explanation

NALNET Periodicals
File

The NASA Library Network (NALNET) Periodicals File, or
Library Network Serials (LNS), is now available on RECON
for searching. This file, identified as File Collection
"M," will be accessible to those organizations authorized
to search the NALNET Books data base (File Collection "F").

You may search the periodicals file using the following
mnemonic codes:

Code	Field
PTL	Title
PTS	Title Supplement
* PHD	Library Posting
* PSS	LNS ISSN Posting
PTC	Title Change
PSN	See Note
PSF	See From Note
PCA	Corporate Author
PPN	Publisher Name
PSC	Subject Category
PTX	All Text Inverted Fields

All of these fields are text searchable with the exception
of the two which are asterisked.

Additional information will be distributed as a revision
of the unabridged RECON User's Manual.

Printer Maintenance
(Bunker-Ramo Termi-
nals)

We have recently signed a contract with Texas Instru-
ments, Inc., for maintenance of the TI Silent 700 Printers
for the Bunker-Ramo Terminals located at NASA Centers.
For service, NASA Centers should call Texas Instruments,
Arlington, VA, (703) 979-9650, and cite Informatics' Purchase
Order 11199. This maintenance contract is effective immediately

RECON operational problems may by directed to the RECON
Coordinator at the NASA Scientific and Technical Information
Facility in Baltimore, Maryland, (Telephone: (301)-796-5300
ext. 286) or Washington, D. C. (Telephone: (202)-621-1910

ext. 286). Other problems, suggestions and comments may be
directed to Norm McCabe (Telephone: (202)-755-3465, NASA
Headquarters, Code NST-6, Washington, D. C. 20546.

**Printer Maintenance
(Continued)**

and will run through February 28, 1979.

Should difficulties arise with this service, please contact
the RECON Coordinator at the NASA Facility, (301) 796-5300,
Extension 286, or (FTS) 982-5650.

**Literature Search
Printout Explanation**

A copy of the literature search printout explanatory matter
is attached. A supply of this material is periodically
sent out to the point of contact for each organization
having a NASA/RECON Terminal. The information is intended
to provide the search printout recipient with explanations
of the accession series, citation format and arrangement,
data elements, and availability of documents cited. A
separate description covers limited distribution citations.
A copy of this material should be retained for reference
at each terminal. Additionally, copies should be provided
to users as required. The printout explanatory matter may
be reproduced locally if desired. Extra copies may be
ordered from the NASA Facility by calling Rosalie Michels
(301) 796-5300, Extension 372.

CONTENT OF NASA LITERATURE SEARCHES

This NASA Literature Search is based on a computerized records search of the technical reports, journal articles, books, conference papers and other publications stored in the NASA scientific and technical information system. Most of these documents have been announced either in NASA's abstract journal *Scientific and Technical Aerospace Reports (STAR)* or in *International Aerospace Abstracts (IAA)*, an abstract journal published by the American Institute of Aeronautics and Astronautics (AIAA) under a NASA contract. Abstracts are included in the literature search for *STAR* and *IAA*, 1972 to date.

DEFINITIONS OF SELECTED ACCESSION SERIES

A-10,000   *International Aerospace Abstracts (IAA)*. Open Literature items accessioned by the American Institute of Aeronautics and Astronautics and announced in *IAA*. Cataloged, indexed, abstracted.

B-10,000   *NASA Tech Briefs (NTB)*. Unclassified announcements of NASA-sponsored technical innovations that may have use outside the aerospace field. Cataloged, indexed, abstracted.

D-10,000   *Aerospace Safety Research and Data Institute (ASRDI)*. ASRDI items are divided into three classes: D-10,000 to D-29,999 for Fire Technology; D-30,000 to D-49,999 for Cryogenic Fluids; D-50,000 to D-69,999 for Mechanics of Structural Failure. Cataloged, indexed, abstracted.

K-10,000   *Research and Development Contract Search (R&DCS) File*. The *R&DCS* File contains information about NASA R & D contracts, grants and orders. Information in the file is available to NASA personnel as a supplement to the ongoing research information contained in *Research and Technology Objectives and Plans*. These items are *not* documents. Cataloged, indexed.

M-10,000   *Computer Program Abstracts (CPA)*. This series comprises manuscript abstracts of computer programs which include descriptions of the programs developed by NASA, its contractors, DOD, its contractors, and other government agencies and their contractors. Cataloged, indexed, abstracted.

N-10,000   *Scientific and Technical Aerospace Reports (STAR)*. Items announced in *STAR*. Unclassified documents of sufficient scientific/technical significance to warrant general announcement. Cataloged, indexed, abstracted.

N-70,000
N-80,000   *Documents of Limited Significance (DLS)*. Older unclassified materials, or materials for administrative reasons considered unsuitable for announcement in a current abstract journal. Cataloged, indexed.

W-70,000   *NASA Research and Technology Objectives and Plans (RTOP)*. RTOP is an annual guide to NASA-sponsored research in progress. It is a summary, with indexes, of all Research and Technology Objectives and Plans submitted by NASA Centers to the NASA Headquarters Office of Aeronautics and Space Technology for management review. These items are *not* documents. Cataloged, indexed, abstracted. See N76-14961 for FY76; N75-20155 for FY75; N74-12673 for FY74. NOTE: For FY77, the document will be called the *NASA Research and Technology Objectives and Plans (RTOP) Summary*. See N77-12925 for FY77.

ARRANGEMENT AND FORMAT OF CITATIONS

The citations in this literature search are arranged in *retrogressive* accession number order within each accession number series by year. This means that the latest accession in each series is listed first with the oldest accession listed last.

The technical reports (unpublished literature) are included in the "N" accession number series whereas journal articles, books, and conference papers (published literature) are included in the "A" accession number series

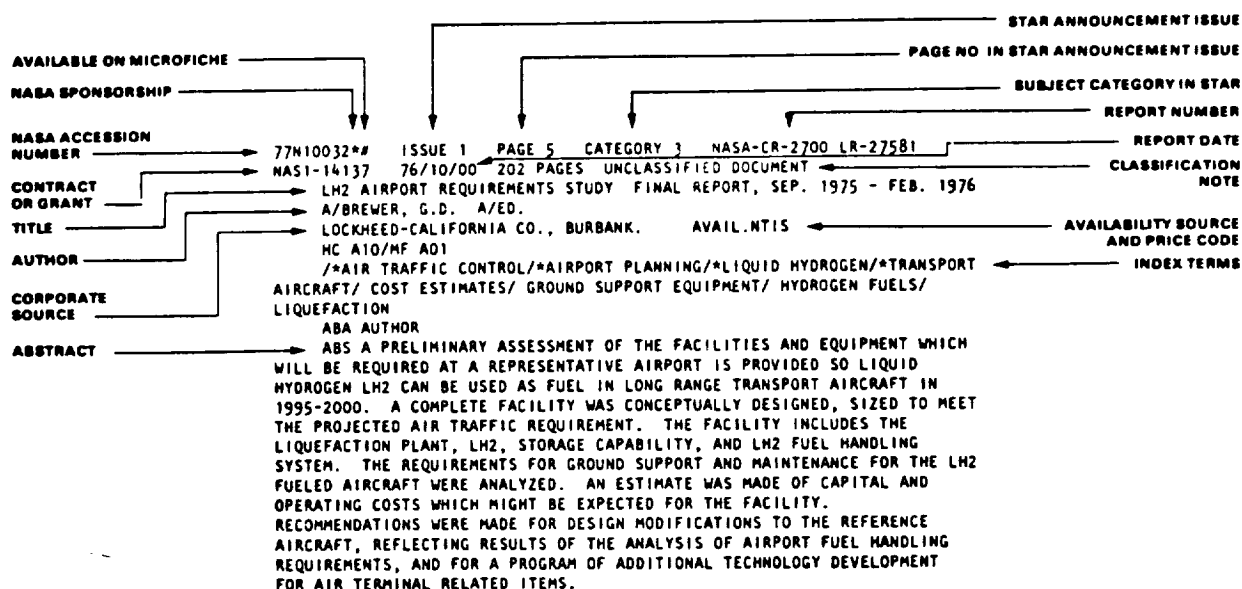An example of a technical report reference citation with each of its elements labeled is reproduced below

STAR ANNOUNCEMENT ISSUE
PAGE NO IN STAR ANNOUNCEMENT ISSUE
SUBJECT CATEGORY IN STAR
REPORT NUMBER

AVAILABLE ON MICROFICHE
NASA SPONSORSHIP

NASA ACCESSION NUMBER — 77N10032*# ISSUE 1 PAGE 5 CATEGORY 3 NASA-CR-2700 LR-27581 — REPORT DATE
NAS1-14137 76/10/00 202 PAGES UNCLASSIFIED DOCUMENT — CLASSIFICATION NOTE
CONTRACT OR GRANT — LH2 AIRPORT REQUIREMENTS STUDY FINAL REPORT, SEP. 1975 - FEB. 1976
A/BREWER, G.D. A/ED.
TITLE — LOCKHEED-CALIFORNIA CO., BURBANK. AVAIL.NTIS — AVAILABILITY SOURCE AND PRICE CODE
AUTHOR — HC A10/MF A01
/*AIR TRAFFIC CONTROL/*AIRPORT PLANNING/*LIQUID HYDROGEN/*TRANSPORT — INDEX TERMS
CORPORATE SOURCE — AIRCRAFT/ COST ESTIMATES/ GROUND SUPPORT EQUIPMENT/ HYDROGEN FUELS/
LIQUEFACTION
ABA AUTHOR
ABSTRACT — ABS A PRELIMINARY ASSESSMENT OF THE FACILITIES AND EQUIPMENT WHICH
WILL BE REQUIRED AT A REPRESENTATIVE AIRPORT IS PROVIDED SO LIQUID
HYDROGEN LH2 CAN BE USED AS FUEL IN LONG RANGE TRANSPORT AIRCRAFT IN
1995-2000. A COMPLETE FACILITY WAS CONCEPTUALLY DESIGNED, SIZED TO MEET
THE PROJECTED AIR TRAFFIC REQUIREMENT. THE FACILITY INCLUDES THE
LIQUEFACTION PLANT, LH2, STORAGE CAPABILITY, AND LH2 FUEL HANDLING
SYSTEM. THE REQUIREMENTS FOR GROUND SUPPORT AND MAINTENANCE FOR THE LH2
FUELED AIRCRAFT WERE ANALYZED. AN ESTIMATE WAS MADE OF CAPITAL AND
OPERATING COSTS WHICH MIGHT BE EXPECTED FOR THE FACILITY.
RECOMMENDATIONS WERE MADE FOR DESIGN MODIFICATIONS TO THE REFERENCE
AIRCRAFT, REFLECTING RESULTS OF THE ANALYSIS OF AIRPORT FUEL HANDLING
REQUIREMENTS, AND FOR A PROGRAM OF ADDITIONAL TECHNOLOGY DEVELOPMENT
FOR AIR TERMINAL RELATED ITEMS.

FIGURE 1 TECHNICAL REPORT CITATION

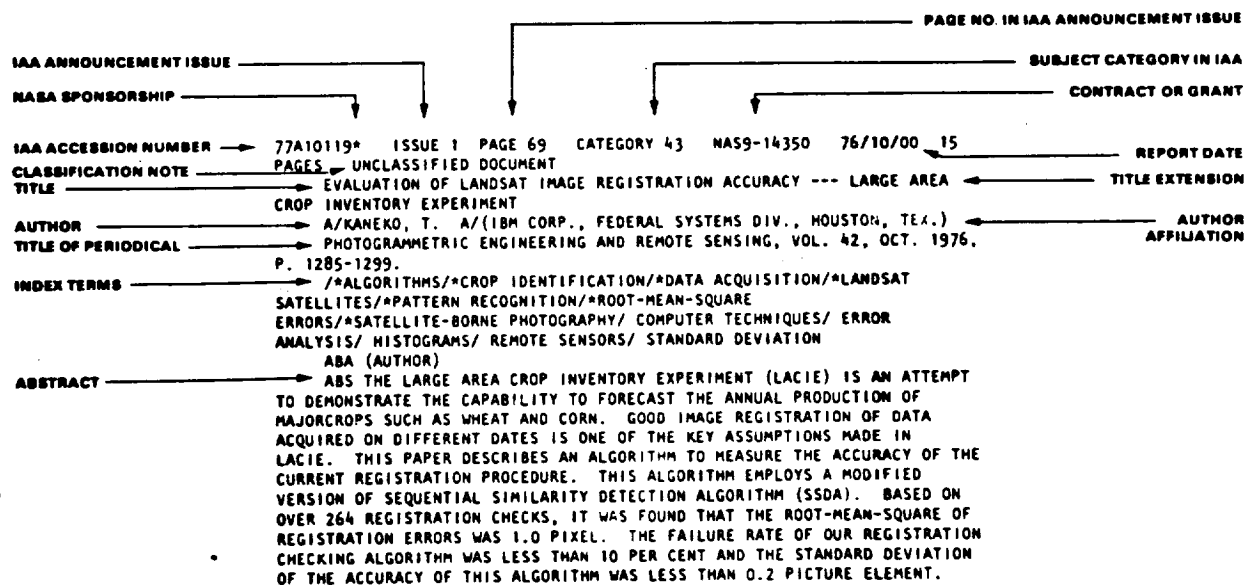An example of a published literature reference citation with each of its elements labeled is reproduced below:

PAGE NO. IN IAA ANNOUNCEMENT ISSUE

IAA ANNOUNCEMENT ISSUE
NASA SPONSORSHIP
SUBJECT CATEGORY IN IAA
CONTRACT OR GRANT

IAA ACCESSION NUMBER — 77A10119* ISSUE 1 PAGE 69 CATEGORY 43 NAS9-14350 76/10/00 15 — REPORT DATE
CLASSIFICATION NOTE — PAGES UNCLASSIFIED DOCUMENT
TITLE — EVALUATION OF LANDSAT IMAGE REGISTRATION ACCURACY --- LARGE AREA — TITLE EXTENSION
CROP INVENTORY EXPERIMENT
AUTHOR — A/KANEKO, T. A/(IBM CORP., FEDERAL SYSTEMS DIV., HOUSTON, TEX.) — AUTHOR AFFILIATION
TITLE OF PERIODICAL — PHOTOGRAMMETRIC ENGINEERING AND REMOTE SENSING, VOL. 42, OCT. 1976,
P. 1285-1299.
INDEX TERMS — /*ALGORITHMS/*CROP IDENTIFICATION/*DATA ACQUISITION/*LANDSAT
SATELLITES/*PATTERN RECOGNITION/*ROOT-MEAN-SQUARE
ERRORS/*SATELLITE-BORNE PHOTOGRAPHY/ COMPUTER TECHNIQUES/ ERROR
ANALYSIS/ HISTOGRAMS/ REMOTE SENSORS/ STANDARD DEVIATION
ABA (AUTHOR)
ABSTRACT — ABS THE LARGE AREA CROP INVENTORY EXPERIMENT (LACIE) IS AN ATTEMPT
TO DEMONSTRATE THE CAPABILITY TO FORECAST THE ANNUAL PRODUCTION OF
MAJORCROPS SUCH AS WHEAT AND CORN. GOOD IMAGE REGISTRATION OF DATA
ACQUIRED ON DIFFERENT DATES IS ONE OF THE KEY ASSUMPTIONS MADE IN
LACIE. THIS PAPER DESCRIBES AN ALGORITHM TO MEASURE THE ACCURACY OF THE
CURRENT REGISTRATION PROCEDURE. THIS ALGORITHM EMPLOYS A MODIFIED
VERSION OF SEQUENTIAL SIMILARITY DETECTION ALGORITHM (SSDA). BASED ON
OVER 264 REGISTRATION CHECKS, IT WAS FOUND THAT THE ROOT-MEAN-SQUARE OF
REGISTRATION ERRORS WAS 1.0 PIXEL. THE FAILURE RATE OF OUR REGISTRATION
CHECKING ALGORITHM WAS LESS THAN 10 PER CENT AND THE STANDARD DEVIATION
OF THE ACCURACY OF THIS ALGORITHM WAS LESS THAN 0.2 PICTURE ELEMENT.

FIGURE 2 PUBLISHED LITERATURE CITATION

DATA ELEMENTS IN THE CITATIONS

Accession number -- a unique number assigned for identification to each document processed into the NASA system. The letter at the beginning of the accession number represents the appropriate series, such as:

"A" -- announced in *International Aerospace Abstracts*.

"B" -- published as a NASA Tech Brief, a one- or two-page announcement of an innovation, concept, device or technique.

"N" -- announced in *Scientific and Technical Aerospace Reports* or an unpublished report that was not announced in *IAA* or in *STAR* because of its age or the preliminary nature of its contents.

The two-digit number (77) immediately following the letter is composed of the last two digits of the year (1977) in which the document was processed into the NASA system.

The number following the letter (10032) in Figure 1; 10119 in Figure 2) is assigned in sequence as the documents are processed. The sequence is repeated each year, starting with the number 10001. Some blocks of numbers have been designated to special subgroups identified as follows:

N62-60001 through N62-72596 -- technical reports that were abstracted and announced in a NASA Special Publication titled *Index to NASA Technical Publications* (NASA SP-9), which is available from the National Technical Information Service (NTIS, formerly CFSTI), Springfield, Virginia 22161

N-80001 through N-89999 for 1963 to 1967 and N-70001 through N-89999 for 1967 to date -- technical reports that are relatively old at the time of processing or contain preliminary information. These references have not been abstracted or announced in *STAR* or *IAA*, but their citations may be retrieved by the computer.

A-80001 and above-published literature citations that have been abstracted and announced in a NASA Special Publication titled *Aerospace Medicine and Biology: A Continuing Bibliography with Indexes* (NASA SP-7011 and its supplements), available from NTIS. The use of this accession number series for this special purpose ended in July 1969.

NASA Sponsorship -- when the asterisk (*) is printed after the accession number, the document cited was written either by a NASA employee or was written under NASA funding.

Available on Microfiche -- when the pound sign (#) is printed in the location shown in these examples, microfiche copies have been made of the document cited. A microfiche is a transparent sheet of film, 105 x 148 mm in size, containing up to 98 pages of information reduced to microimages (not to exceed 26:1 reduction).

Announcement Issue -- the issue (Issue 1 in Figures 1 and 2) of *STAR* or *IAA*, during the year indicated in the *accession number* (1977) in which the citation and abstract of the document were printed. If the document was not announced in *STAR* or *IAA*, this element and the two that follow will not appear in the printout.

Page Number -- the number of the page in *STAR* or *IAA* on which the citation and abstract may be found.

Category Number -- the subject category section of *STAR* or *IAA* in which citation and abstract may be found.

Report Number -- all numbers assigned to a specific document by the originating agency, the corporate source, or the accession number assigned by another government agency.

Contract or Grant -- the numbers of all contracts, grants or orders cited in a document as the financial support for the research reported.

Report Date -- Indicates the date the document was published. Documents not bearing dates of publication have these dates supplied by the cataloger from the best available evidence. Entry is Year/Month/Day.

Title -- the descriptive designation of a document as it appears on the title page or cover of a report, or at the beginning of a journal article.

Notation of Content -- a brief description of the contents of a document. In some cases, a Notation of Content is not included. It was replaced by the *Title Extension* in 1974.

Title Extension -- is used optionally in *STAR* and *IAA* to enhance the title and is separated from the title by three dashes.

Author(s) -- the name of the person or persons who created the document. When there is more than one author, the names of the authors are listed in the search citation in the same order in which they are listed in the document. Preceding each author's name is a code letter in alphabetical sequence (A/, B/, C/). In a published literature citation, the code letter preceding the author's name corresponds with the second letter of a two-letter code (AA/, AB/, AC/) preceding the author's name affiliation (see *Author Affiliation*, below). Thus, an author preceded by A/ was affiliated with the organization preceded by AA/; an author preceded by B/ was affiliated with the organization preceded by AB/, etc. If a published literature citation has only one author affiliation, it applies to all authors listed regardless of the code letters appearing with it. In a technical report citation, the two-letter code precedes information related to the author.

Author Affiliation -- in a published literature citation, the organization in which the author was working at the time the document was prepared.

Corporate Source -- in a technical report citation, the name of the organization issuing the document cited, and which is experimentally (or technically), editorially, or contractually responsible for the document. It is the name of the body which actually prepared the document, cited in the form that was current at the time of the document's release, as indicated in the document.

Availability Source -- a source from which the document is available to the public.

Title of Periodical -- the name of the journal, book, or other work in which the cited article was originally printed. This is followed by the volume number, issue number and page numbers, if applicable, to identify the citation in relation to the published work in which it was printed.

Index Terms -- all of the subject terms used to index the document, whether or not the individual terms apply directly to this search. Terms preceded by an asterisk are those used in the *STAR* or *IAA* Subject Indexes, these are listed first. The remaining terms are stored in the computer for machine searching purposes.

Abstract -- abstracts are available for *STAR* and *IAA* accessions from 1972 to date. The mnemonics ABA and ABS denote abstract author and abstract, respectively.

DATA FLAGGING AND TAGGING PROJECT

The NASA Scientific and Technical Information Office, with support from the National Science Foundation, is conducting a Data Tagging and Flagging Experiment aimed at improving users' access to the numeric data reported in the aerospace literature.

All accessions in the following subject categories for 1977 *STAR/IAA* Issues 05 - 10 have been analyzed for numeric data content: 02 Aerodynamics; 24 Composite Materials; 26 Metallic Materials; 27 Nonmetallic Materials; 71 Acoustics; and 74 Optics.

Sample of a Data Flagged and Tagged Accession

```
77N14843*#   ISSUE 5   PAGE 675   CATEGORY 74   NASA-CR-150117
ITEK8-29949-FRI-VOL-2A
UNCLASSIFIED DOCUMENT
      SPACE TELESCOPE OPTICAL TELESCOPE ASSEMBLY/SCIENTIFIC INSTRUMENTS.
PHASE B   PRELIMINARY DESIGN AND PROGRAM DEFINITION STUDY.  VOLUME 2A
FOCAL PLANE CAMERA   FINAL REPORT
      ITEK CORP., LEXINGTON, MASS.   AVAIL.NTIS   HC A06/MF A01
      /*SPACEBORNE TELESCOPES/*TRADEOFFS/ ELECTROMAGNETIC FIELDS/
FOCUSING/ LENSES/ MIRRORS/ OPTICAL
EQUIPMENT/**COOLING/**CYCLES/**DIAMETERS/**MODULATI ◄──────────── DATA TERMS
ON/**REFRACTION/**TEMPERATURE MEASUREMENT/**TIME/**WAVELENGTHS           (preceded by
      ABA AUTHOR                                                         double asterisks)
      ABS TRADE STUDIES WERE CONDUCTED TO ENSURE THE OVERALL FEASIBILITY
OF THE FOCAL PLANE CAMERA IN A RADIAL MODULE. THE PRIMARY VARIABLE IN
THE TRADE STUDIES WAS THE LOCATION OF THE PICKOFF MIRROR, ON AXIS
VERUS OFF-AXIS.  TWO ALTERNATIVES WERE (1) THE STANDARD
(ELECTROMAGNETIC FOCUS) SECO SUBMODULE, AND (2) THE MOD 15 PERMANENT
MAGNET FOCUS SECO SUBMODULE.  THE TECHNICAL AREAS OF CONCERN WERE THE
PACKAGING AFFECTED PARAMETERS OF THERMAL DISSIPATION, FOCAL PLANE
OBSCURATION, AND IMAGE QUALITY.
DATA SUMMARY ──►  SUM ENCIRCLED ENERGY AND POINT SPREAD FUNCTIONS OF THE FOCAL PLANE
CAMERA AT 325 NM; VARIABLES ARE RELATIVE INTENSITY, IMAGE DIAMETER,
MODULATION TRANSFER, CYCLES, TIME, INDEX OF REFRACTION, WAVELENGTHS,
COOLING CAPACITY, TEMPERATURE DIFFERENTIAL; 23 FIGURES INCLUDE NUMERIC
DATA.
```

AVAILABILITY OF DOCUMENTS

Many of the technical reports cited, and many of the journals or books from which the published literature citations were selected, may be available in your organization's library or other local libraries.

"N" ACCESSION NUMBER SERIES

One or more sources from which a document announced in *STAR* is available to the public is ordinarily given on the last line of the citation. The most commonly indicated sources and their acronyms or abbreviations are listed below. If the publication is available from a source other than those listed, the publisher and his address will be displayed on the availability line or in combination with the corporate source line.

Avail: NTIS. For NTIS prices of hardcopy and microfiche, consult your latest issue of *STAR*. NTIS price schedules have been included in *STAR*, commencing with *STAR 1*, January 8, 1977.

Microfiche is available regardless of age for those accessions followed by a # symbol.

Initially distributed microfiche under the NTIS SRIM (Selected Research in Microfiche) is available at greatly reduced unit prices. For this service and for information concerning subscription to NASA reports, consult the NTIS Subscription Unit.

NOTE ON ORDERING DOCUMENTS: When ordering NASA publications (those followed by the * symbol), use the N accession number. NASA patent applications (only the specifications are offered) should be ordered by the US-Patent-Appl-SN number. Non-NASA publications (no asterisk) should be ordered by the AD, PB, or other *report* number shown on the last line of the citation, not by the N accession number. It is also advisable to cite the title and other bibliographic identification.

Avail: SOD (or GPO). Sold by the Superintendent of Documents, U.S. Government Printing Office, in hard copy. The current price and order number are given following the availability line. (NTIS will fill microfiche requests, at the standard $3.00 price, for those documents identified by a # symbol).

Avail: NASA Public Document Rooms. Documents so indicated may be examined at or purchased from the National Aeronautics and Space Administration, Public Documents Room (Room 126), 600 Independence Ave., S.W., Washington, D.C. 20546, or public document rooms located at each of the NASA research centers, the NASA Space Technology Laboratories, and the NASA Pasadena Office at the Jet Propulsion Laboratory.

Avail: ERDA Depository Libraries. Organizations in U.S. cities and abroad that maintain collections of Energy Research and Development Administration reports, usually in microfiche form, are listed in *Nuclear Science Abstracts*. Services available from the ERDA and its depositories are described in a booklet, *Science Information Available from the Energy Research and Development Administration* (TID-4550), which may be obtained without charge from the ERDA Technical Information Center.

Avail: Univ. Microfilms. Documents so indicated are dissertations selected from *Dissertation Abstracts* and are sold by University Microfilms as xerographic copy (HC) and microfilm. All requests should cite the author and the Order Number as they appear in the citation.

Avail: USGS. Originals of many reports from the U.S. Geological Survey, which may contain color illustrations, or otherwise may not have the quality of illustrations preserved in the microfiche or facsimile reproduction, may be examined by the public at the libraries of the USGS field offices whose addresses are listed in this Introduction. The libraries may be queried concerning the availability of specific documents and the possible utilization of local copying services, such as color reproduction.

Avail: HMSO. Publications of Her Majesty's Stationery Office are sold in the U.S. by Pendragon House. Inc. (PHI). Redwood City. California. The U.S. price (including a service and mailing charge) is given, or a conversion table may be obtained from PHI.

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COMPUTERIZED SIMULATION/ DIRECT LIFT CONTROLS
ABA AUTHOR
ABSTRACT ━━━━━━━▶ ABS A MOVING-BASE CARRIER LANDING SIMULATION WAS CONDUCTED TO
EVALUATE THE F-14A AIRPLANE AUTOMATIC CARRIER LANDING SYSTEM (ACLS)
WITH AND WITHOUT INTEGRATED DIRECT LIFT CONTROL. STATISTICAL RESULTS
SHOW THAT INCORPORATION OF DIRECT LIFT CONTROL IN THE AIRBORNE PORTION
OF THE ACLS CAN PROVIDE SIGNIFICANTLY IMPROVED LANDING PRECISION IN
FULLY AUTOMATIC APPROACHES OVER THAT AVAILABLE WITH THE CONVENTIONAL
ACLS THAT EMPLOYS ONLY PITCH CONTROL. PILOT EVALUATION INDICATED THAT
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NASA RECON User's Bulletin

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MAY 1978

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Registration Product Control System (RPCS) Access

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UTS 400 Function Key Support
    Screen Management

RPCS Access

The Registration and Product Control System (RPCS) contains a file on registered users of the NASA Scientific and Technical Information System. The users are characterized by "who, what, and where," descriptors and by the services and products each user is authorized to receive. The services and products (including copy total) are but an extension of the user characteristics. The (RPCS) file is now available on RECON for searching by users at NASA Center and is identified as file collection 'L'.

The RPCS file is searched by utilizing five inverted files associated with it. One of the inverted files is a text index file which encompasses six lines of corporate address, thereby providing text search capability for the corporate source address. The four other inverted files provide searching on product, class, descriptor, and contract number.

The prefix codes for the five inverted files are:

TXT/	Text Index File (encompasses six lines of corporate address including the attention line).
CS1/	Corporate Source Address - Line 1
CS2/	Corporate Source Address - Line 2
CS3/	Corporate Source Address - Line 3
AT1/	First Attention Line
CS4/	Corporate Source Address - Line 4
CS5/	Corporate Source Address - Line 5
PRD/	Product Index File
CLS/	Class Index File

RPCS Access
(Continued)

DES/		Descriptor Term Index File
CNT/		Contract Index File

The list of field mnemonics that may be used to reformat the output with the SPECIFY-FORMAT command are:

No.	Code	Field
1	SPN	SPONSOR
2	UID	USER IDENTIFICATION
3	NAT	NATIONAL GEOGRAPHIC DATA
4	CGA	CONTIGUOUS AREA
5	REG	REGIONAL AREA
6	STC	STATE AND CITY
7	AF1	AFFILIATION TYPE 1
8	AF2	AFFILIATION TYPE 2
9	AF3	AFFILIATION TYPE 3
10	OR1	ORGANIZATION TYPE 1
11	OR2	ORGANIZATION TYPE 2
12	OR3	ORGANIZATION TYPE 3
13	SV1	SERVICE TYPE 1
14	SV2	SERVICE TYPE 2
15	SV3	SERVICE TYPE 3
16	SEC	SECURITY ACCESS
17	PAY	PAY CLASSIFICATION
18	MF1	MICROFICHE G1
19	MF2	MICROFICHE H1
20	MF3	MICROFICHE G3
21	MF7	MICROFICHE G4
22	MF4	MICROFICHE G1SR
23	MF6	MICROFICHE H1SR
24	MF5	MICROFICHE G3SR
25	MF8	MICROFICHE G4SR
26	CDT	CHANGE DATE
27	CRN	CHANGE REASON
28	DDT	DELETION DATE
29	DRN	DELETION REASON
30	EDT	ENTRY DATE
31	CS1	CORPORATE SOURCE LINE 1
32	CS2	CORPORATE SOURCE LINE 2
33	CS3	CORPORATE SOURCE LINE 3
34	AT1	ATTENTION LINE 1
35	AT2	ATTENTION LINE 2
36	CS4	CORPORATE SOURCE LINE 4
37	CS5	CORPORATE SOURCE LINE 5
38	DES	DESCRIPTORS

RPCS Access
(Continued)

No.	Code	Field
39	PRD	PRODUCT DATA
40	SNA	SCAN A & B
41	CLS	CLASS AND DIVISION DATA
42	CNT	CONTRACT DATA
43	SNB	SCAN B DATA

Additional information will be available in the revision
of the NASA/RECON System User's Manual.

Search Strategies

Augmentation or Contraction of a Given RECON Set
(By use of the KEEP command)

There are occasions when the search analyst would like
to modify a RECON set by adding or deleting one or more
accessions before printing the set.

Let us assume Set 11 as follows:

```
ENTER:
S INTERPHONES
RECEIVED:  S INTERPHONES
    11       11      11 ST/INTERPHONES

ENTER:
D 11/1/ALL
RECEIVED:  D 11/1/ALL
           DISPLAY 11/1/1-11
```

77X76466   77X75844   77X73480   77X73479   77X72930   75X71530   76N74704   69N80320

69N80319   68N25814   68N15652

We wish to add two accessions to Set 11 as follows:

```
ENTER:

K 78N12345
RECEIVED:  K 78N12345
           KEEP 78N12345
```

Search Strategies
(Continued)

```
ENTER:
K 78N12346
RECEIVED:   K78N12346
            KEEP 78N12346


ENTER:
C 11+99
RECEIVED:   C 11+99
 12       13       13 11+99
```

Enter 2 "KEEPS" and then combine 11+99 for Set 12 consisting of 13 accessions.

Be extremely cautious in removing accessions from a given set, particularly if two or more series are involved in the basic set and the KEEP command has been used previously since the last END-SEARCH process.

Let us assume we wish to remove items 2 and 3 from Set 11. We proceed:

```
ENTER:
K 11/2-3
RECEIVED:   K 11/2-3
            KEEP 11/2-3
```

Set 99 now consists of these 2 items and the two original KEEPS (above). To ensure the removal of the two items, we must limit 99 to the X series.

```
ENTER:
L 99//X
RECEIVED:   L 99//X
         13       2       2 LIMIT 99//X


ENTER:
C 11-13
RECEIVED:   C 11-13
  14       9       9 11-13
```

Set 13 now consists of X items. Subtracting Set 13 from Set 11 results in Set 14 with 9 items.

Caution: Do not combine sorted sets, because they will not be in the proper sequence.

Further details on the use of the KEEP command are in Section 5.3.11 of the NASA/RECON Systems User's Manual, Complete Version, Revision 2.

UTS 400 Function Key
Support

The STI Facility has developed software that is loaded
into the UTS 400 terminal to manage the keyboard and
display, specifically for NASA/RECON operation. Utili-
zation of this capability is subject to the following
restrictions:

- 8K memory in the UTS 400 in addition to the
  standard configuration

- Software loading is requested by a telephone call
  to the RECON Coordinator (soon to be initiated by
  terminal user input command)

- Power off/on or test sequences require software to
  be reloaded

The purposes of this software are to provide function key
input for the nine most frequently used RECON commands,
more facile keyboard management than the standard UTS 400
or Bunker-Ramo keyboards, complete management of the UTS
400 display, and the disabling of certain UTS 400 keys that
can produce difficulties in RECON usage.

THE UTS 400 STANDARD KEYBOARD

The UTS 400 Terminal keyboard is divided into four sections.
The top two rows of keys consist of terminal control and
screen management functions. The lower left section con-
tains cursor control keys and the UPPER FUNCTION key.
Since many of the keys in the top two rows are dual function
keys (F5 - F14), the UPPER FUNCTION key selects the function
labeled on the upper part of the key. The lower middle
section of the keyboard is in typewriter format and used
for standard keyboard input. Finally, the lower right key-
board section constitutes a numeric pad for numeric character
input.

UTS 400 MODIFIED KEYBOARD FOR RECON USAGE

As stated previously, the STI Facility software for the UTS
400 terminals modifies the standard keyboard functions.
Immediately following loading of the software from STIF,
the terminal display is cleared and the message ENTER:
followed by the cursor appears at the left margin of the
bottom line of the screen. The right portion of the bottom

UTS 400 Function Key
Support (Continued)

line contains the message:

RECON MODE ACTIVE.

This is the normal default condition following software
loading. The function of the keyboard is now modified.
The terminal user may deactivate this mode of operation
by simultaneously depressing the UPPER FUNCTION key and
the F14 key to enter the local mode. The RECON MODE
ACTIVE message is replaced with the message:

LOCAL MODE ACTIVE.

Local mode operation permits the user to modify the Control
Page, activate peripherals, or perform any of the keyboard
functions restricted by the RECON mode. The user may
reenter the RECON mode by simultaneously depressing the
UPPER FUNCTION and F15 keys..

While in the RECON mode, the UTS 400 software provides
RECON command input using keys F5 through F13 for the nine
most frequently used RECON commands. The function key
designations and their corresponding command applications
are listed in Table 1. The result of depressing any of
these function keys is the display of the command name
from the right column of Table 1 next to the ENTER: on
the bottom line of the screen. The command name is
followed by a space and the cursor to enable the operator
to input command arguments. The operator may change the
command name and erase the line using any of the other
function keys F5 - F13 as many times as desired prior to
initiating transmission.

Other normal keyboard modifications are listed in Table 2.
These modifications may be summarized as follows:

- Lowercase input is converted to uppercase, thus
  eliminating the need to use the shift lock key,

- The key for inputting a ? or / has been modified
  to provide a slash regardless of the keyboard case,

- The LF, FF, and SOE keys have been disabled, and

- The space bar will erase and advance the cursor.

Since only nine RECON commands may be entered through
function keys, the remaining commands must be entered

UTS 400 Function Key
Support (Continued)

directly by typing any of the command mnemonics in Table 3.
Also, all commands must be separated from their operands
by at least one space. Whenever any of the mnemonics in
Table 3 are entered and followed by a space, the software
will expand the mnemonic to the full command text. If a
three-character mnemonic is entered that is not in Table 3
and followed by a space, the message

INVALID COMMAND

will appear in the right portion of the bottom line. This
action will not inhibit further user input, but it is
intended as a warning.

For example, if the user wishes to enter a LIMIT command,
an L is input from the keyboard followed by a space. This
action causes the L to be expanded to LIMIT followed by a
space and the cursor. The user may now enter the LIMIT
operands.

UTS 400 Screen
Management

Because certain UTS 400 screen management control keys are
not used in the RECON mode, they have been disabled or
modified in order to minimize user problems. Table 4
lists all control keys on the UTS 400 keyboard and indicates
if its standard operating function has been modified.

Several key operations in Table 4 are worthy of special
mention. They are:

- ERASE DIS - This key will cause the entire screen
  to be erased, reformatted, and the ENTER: message
  to be displayed in the left margin of the bottom
  line, followed by the cursor.

- DELETE LINE - Data deletion is restricted to fields
  which are nonprotected, that is, available for
  keyboard input.

- BACKSPACE - Erases any character spaced over and
  moves the cursor.

UTS 400 Screen
Management
(Continued)

• SPACE - Erases any character spaced over and moves
the cursor.

Any key which has been disabled for the RECON mode will
cause the message

NO OPERATION

to be displayed on the bottom line.

UTS 400 Screen
Management
(Continued)

TABLE 1.   FUNCTION KEY INPUTS/OUTPUTS

INPUTS (KEYBOARD)		OUTPUTS (KEYBOARD)
KEY DESIGNATOR	KEY FUNCTION/TYPE	COMMAND ENTRY TEXT
F1-F4	NOT APPLICABLE	NOT APPLICABLE
F5	BEGIN-SEARCH	BEGIN-SEARCH
F6	EXPAND	EXPAND
F7	SELECT	SELECT
F8	COMBINE	COMBINE
F9	DISPLAY	DISPLAY
F10	PRINT	PRINT
F11	EXPLAIN	EXPLAIN
F12	END-SEARCH	END-SEARCH
F13	PAGE	PAGE
F14	LOCAL	LOCAL MODE ACTIVE Msg
F15	RECON	RECON MODE ACTIVE Msg
F16-F22	NOT USED	No-Operation Msg

TABLE 2.   NORMAL KEY INPUTS/OUTPUTS

INPUTS (KEYBOARD)			OUTPUTS (DISPLAY)
KEY DESIGNATOR	ASCII CHAR	KEY FUNCTION/TYPE	DATA ENTRY TEXT
-	-	Special Characters	No Change
-	-	Numerics	No Change
?	?	Question Mark	Slash (/)
@	@	At Symbol	No Change
-	A-Z	Uppercase Alphabetics	No Change
-	a-z	Lowercase Alphabetics	Uppercase Alphabetics
TAB FWD	-	Tab Forward	No Change
LF	-	Line Feed	No-Operation Msg
FF	-	Form Feed	No-Operation Msg
SOE	-	Start-of-Entry	No-Operation Msg
CR	-	Carriage Return	No Change

UTS 400 Screen
Management
(Continued)

TABLE 3. COMMAND MNEMONIC INPUTS/OUTPUTS

INPUTS (KEYBOARD)				OUTPUTS TO COMMAND ENTRY LINE
COMMAND MNEMONICS			COMMAND NAMES	
B	BS	BGN	Begin Search	BEGIN-SEARCH
X	XP	XPN	Expand	EXPAND
S	SEL	SL	Select	SELECT
C	CO	COM	Combine	COMBINE
D	DIS	DSP	Display	DISPLAY
PR	PRN	PRT	Print	PRINT
T	TY	TP	Type	TYPE
EN	ES	END	End Search	END-SEARCH
R	RLS	REL	Release	RELEASE
SS	SCH	SST	Search Status	SEARCH-STATUS
DSH	HI	HIS	Display Set History	HISTORY
L	LIM	LMT	Limit	LIMIT
LA	LAL		Limit-All	LIMIT-ALL
SF	SPE	SP	Specify Format	SPECIFY-FORMAT
FO	FMT	FOR	Format	FORMAT
I	IT	ITM	Item	ITEM
P	PG	PAG	Page	PAGE
K	KP	KE	Keep	KEEP
XPL	EX	EXP	Explain	EXPLAIN
H	HE	HEL	Help	HELP
ST	STA		Status	STATUS
CA	CL	CAN	Cancel	CANCEL
F	FR	FRE	Frequency	FREQUENCY
	SO	SOR	Sort	SORT
RS	RNG	RAN	Range Search	RANGE-SEARCH

UTS 400 Screen
Management
(Continued)

Table 4.   CONTROL KEY INPUTS/OUTPUTS

INPUTS (KEYBOARD)		OUTPUTS OR OPERATIONS
KEY DESIGNATOR	KEY FUNCTION/TYPE	
ERASE TO EOD	Erase To End Of Display	No Change
ERASE TO EOL	Erase To End Of Line	No Change
ERASE TO EOF	Erase To End Of Field	No Change
ERASE DIS	Erase Display (All)	Display is cleared and 'ENTER:' is displayed
DELETE IN LINE	Delete Characters In Line	No Change
DELETE IN DIS	Delete Character In Display	No Change
DELETE LINE	Delete Line	Restricted to Data Entry Fields
INSERT IN LINE	Insert Character In Line	No Change
INSERT IN DIS	Insert Character In Display	No Change
INSERT LINE	Insert Line	Restricted to Data Entry Field
BACK SPACE	Backspace	Move cursor backward and erase character
SPACE	Forward Space	Erase character and move cursor forward
TAB SET	Set Tab Stop	Display No-Operation Msg
CURSOR TO HOME	Cursor to Home	No Change
TAB BACK	Tab Backward	No Change

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uTS 400 Screen
Management
(Continued)

TABLE 4. CONTROL KEY INPUTS/OUTPUTS (CONT)

INPUTS (KEYBOARD)		OUTPUTS OR OPERATIONS
KEY DESIGNATOR	KEY FUNCTION/TYPE	
LINE DUP	Line Duplicate	Display No-Operation Msg
CLR CHG	Clear Changed Bits	Display No-Operation Msg
REP ADR	Report Address	Display No-Operation Msg
CONTROL PAGE	Display/Restore Control Page	Display No-Operation Msg
XMIT	Transmit	No Change
PRINT	Print	No Change
XFER	Transfer	Display No-Operation Msg or perform indicated operation
STATUS	Report Status	Display No-Operation Msg
HANG UP	Hang Up	Display No-Operation Msg
LOAD PROGRAM	Load Program	Display No-Operation Msg
FCC CLEAR	FCC Clear	Display No-Operation Msg
FCC LOCATE	FCC Locate	Display No-Operation Msg
FCC REENABLE	FCC Reenable	Display No-Operation Msg
FCC GENERATE	FCC Generate	Display No-Operation Msg
SEARCH	Search	Display No-Operation Msg
BOB	Back One Block	Display No-Operation Msg
RELEASE BUFFER	Release Buffer	Display No-Operation Msg
RECOVER BUFFER	Recover Buffer	Display No-Operation Msg

NASA RECON User's Bulletin

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RECON Stored Search Sequence Capability

Deletion of Commercial Data Bases

FREQUENCY Command

New York Times Information Bank Searches for NASA
   Organizations

Addition of New Users

•   Use of the Full BEGIN-SEARCH Command

**RECON Stored Search
Sequence Capability**

A new capability is being added to the NASA/RECON System
that enables the creation, storage, and subsequent editing
and execution of user-defined command sequences. This
facility will enable the RECON user to create and save
search strategies that may be repetitive in nature. For
such searches, reexecution can be initiated with a single
command. Additionally, minor modifications to the search
may be performed, stored as another search, and executed.
This stored search sequence capability is also to be used
as the basis for a user-oriented Selective Dissemination of
Information (SDI) System.

The creation and execution of stored searches are performed
through the new RECON QUERY command. The QUERY command
consists of a large number of subcommands and parameters to
permit stored search operations. The complete documentation
package describing the QUERY command is too voluminous to
include in this bulletin. However, a complete description
of the stored search capability and the QUERY command
features will soon be available through a revised NASA/RECON
User's Manual. This feature will not be available for all
terminals.

Deletion of Commercial Data Bases	The Engineering Index (COMPENDEX) and Metals Index (METADEX) file collections have been deleted from access through NASA/RECON. These file collections, J and K, were deleted because the cost of storing and maintaining the files was not justified by the relatively low usage.
FREQUENCY Command	The FREQUENCY command is a low-usage RECON command which provides a feature that can be used to extend or augment the results of a search or even to limit it by improving search precision. The FREQUENCY command itself provides a display of the subject terms indexed to the citations comprising a RECON set. The display is ordered by term in descending frequency occurrence of the referenced set. This means that a RECON user, having determined that his search is complete, may initiate a FREQUENCY command on the final set obtained in order to determine if there are any subject terms that were indexed to the citations in the set, that may not have been considered in the initial search strategy. Hence, the user may extend the search using terms from the FREQUENCY display that may be determined to be relevant to the initial search requirements. Unwanted classes of documents can be eliminated by using the "not" logic but always with great care to avoid eliminating useful information. A complete description of the FREQUENCY command and its options is included in Section 5 of the revised NASA/RECON User's Manual.
New York Times Information Bank Searches for NASA Organizations	The STI Facility is now prepared to process search requests from NASA personnel for the New York Times Information Bank. Requests should be addressed to NASA Headquarters, Attn: Code NST-42.
	The Information Bank comprises virtually all the news and editorial matter from the final Late City Edition, including Sunday feature sections and daily and Sunday regional material not distributed within New York City. The Information Bank also contains selected articles from several general circulation newspapers, business publications, science publications, news weeklies, and so forth.
	The requester is urged to ensure that the subject of a search request is relevant for the Information Bank.

Addition of New
Users

A number of new NASA/RECON users have been added from
the Department of Energy and Environmental Protection
Agency on an exchange basis. The Department of Energy
users are: The Argonne National Laboratory, The
Department of Energy Library, The Lawrence Berkeley
Laboratory, Lawrence Livermore Laboratory, Sandia
Laboratories, The DOE Technical Information Center,
and Pacific Northwest Laboratory. The new EPA user
is the Boulder Laboratories.

Use of the Full
BEGIN-SEARCH Command

Recent modifications to the NASA/RECON System require
that all users (hardwire and dial-in) must enter a full
BEGIN-SEARCH command as their first command of the first
session everyday. If you enter any other command, you
should receive a message indicating that a BEGIN-SEARCH
command must be entered. It is emphasized that it must
be a full BEGIN-SEARCH command and not a BEGIN-SEARCH
Bypass. This requirement is necessary in order to
allocate intermediate storage assignments for each
USERID for that session.

In addition, the questionnaire displayed as a result of
a full BEGIN-SEARCH command (for leased-line users)
contains two additional fields that are not presently
used. The first field is labeled SET SAVE which will,
in the future, enable a RECON user to switch file
collections using the BEGIN-SEARCH command and still
retain the sets created in the previous search. The
second field is labeled USERID which will enable a
single leased-line user to have multiple searches in
progress simultaneously from the same terminal. When
implemented, this will permit one user to perform a
search with his or her own personal USERID, leave the
terminal, prior to completion of the search, and allow
another user to do a complete search at the terminal
without disturbing the saved contents of the first
search. Until further notice, these two fields should
be ignored by all users.